



January 27, 2017

Craig A. Miller Sr
Webster University
470 East Lockwood Ave
St. Louis, MO 63119-3194

Via Email

Re: Paric Corporation Project No. 15051
15051-Webster University Interdisciplinary Science Building
CP-052 - ASI #33 Plumbing RFIs and 02 add to HPS

Dear Craig A. Miller Sr:

Paric Corporation proposes to complete the following additional work for the additive sum of Thirty-Four Thousand Three Hundred Fifty-Five Dollars And Zero Cents \$34,355.00 .

This change will impact the scheduled completion date by 0 days.

- PCI-E-0055 (ASI#33 - Plumbing RFIs & 02 add to HPS), Total \$ 34,355.00

The owner contingency will be used for this change proposal. Please review DeLuca clarifications to pricing.
Proposed Change Proposal Total: \$34,355.00

If this change proposal meets with your approval, please sign and return this proposal for our records by February 02, 2017 at the latest. If accepted this scope will be incorporated into a change order.

Sincerely,

Paric Corporation


Jason Szachnieski
Project Manager

Accepted: 

Date: 1/27/2017
Craig A. Miller Sr
Webster University

Declined:

Date: _____
Craig A. Miller Sr
Webster University

Paric Corporation

PROJECT MANAGEMENT - CHANGE ITEM DETAIL REPORT

15051 - 15051-Webster University Interdisciplinary Science Building

Page: 1 of 1

Date: 27-JAN-17

Time: 09:00 AM

Status: EXT EXT

CI Type	CI Number	Description	Estimated Amount	Quoted Amount	Final Amount	Due to Owner	Notes	Date Sent	Date Received	Date Closed	Budgeted Amount	Billing Amount	Owner CO
EXT	PCI-E-0055	ASI#33 - Plumbing RFIs & O2 add to HPS			34,355.00	09-DEC-16					34,355.00	34,355.00	
Vendor Name			Description										
	Icon Mechanical Construction & Engineering, I15051	15500.001 S	Mechanical Sub	575.00	ASI#33 - Plumbing RFIs & O2 add to HPS	Provide oxygen outlet and extend oxygen gas service line per ASI#33 and ICON proposal dated 11/11/16. Add \$575							
	DeLuca Plumbing LLC	15051	15400.001 S	Plumbing Sub	32,173.00	ASI#33 - Plumbing RFIs & O2 add to HPS	Provide plumbing work associated with ASI#33 - 2 additional floor sinks and trap primers per DeLuca COR#24. Add \$32,173						
	PARIC	15051	23100.001 M	Risk Management (1.1%)	360.00	ASI#33 - Plumbing RFIs & O2 add to HPS	Risk Management						
	PARIC	15051	23150.005 M	Contractor Default Insurance (1.25%)	409.00	ASI#33 - Plumbing RFIs & O2 add to HPS	Contractor Default Insurance						
	PARIC	15051	23300.001 F	Fee I (2.5%)	838.00	ASI#33 - Plumbing RFIs & O2 add to HPS	Contractor Fee						
Total For EXT			0.00	0.00	34,355.00						34,355.00	34,355.00	
Grand Total:			0.00	0.00	34,355.00						34,355.00	34,355.00	

END OF REPORT

Report Parameters

Job:	15051	Project Code:	
From Change Order:		Run Date:	27-JAN-17
To Change Order:		Run Time:	09:00 AM
Status Code:		Operator:	JAS39SZA
Report Type:	DETAIL	Posting Status:	Unposted CI
Print Notes:	Y	Report Code:	PM5000
Group By:	STATUS		



1616 Cleveland Boulevard • Granite City, IL 62040

November 11, 2016

Paric Corporation
77 West Port Plaza #250
St. Louis, MO 63146

Attn: Mr. Jason Szachnieski
Project: Webster University ISB
Ref: ASI-33

Dear Jason,
We are pleased to submit our change proposal associated with the Webster University ISB Project. The changes covered by this change order as follows:

Price for Above Listed Addendum: \$575

The above price included:

- **Piping Material and Gas Outlet**

\$170

- **Labor to add new piping and outlet**

PF General Foreman	ST	0.2	\$ 98.80	\$ 16.47
PF Foreman	ST	0.5	\$ 98.48	\$ 49.24
PF Journeyman	ST	3.3	\$ 93.58	\$ 311.94
			\$	377.64

\$378

- **Misc.**

\$27

Thank you for giving us the opportunity to submit on this scope change. We wish you success and look forward to continued involvement. If there are any questions or if we can be of further assistance, please contact me.

Sincerely,
icon Mechanical
Alex Chambers
cc: quote file

**Submit Line-Item
Breakdown**

This \$575 CP is broken into Material, Labor and Misc. The labor is further divided into hours per GF, F, and Journeyman. This level of breakdown is appropriate for a \$575 change. Jason Szachnieski, Paric 1/11/17

Szachnieski, Jason

From: billp@delucaplbg.com
Sent: Wednesday, January 11, 2017 7:48 AM
To: Szachnieski, Jason
Cc: John DeLuca Jr
Subject: Revised COR 24 ASI 33
Attachments: Webster ISB - COR 24 - ASI 33 Revised.pdf

Recap

- Access panels are for added trap primers
- PRV's are for autoclaves - we have found that without them water hammer is terrible
- P101 - Elbow count was incorrect - corrected in the attached

Szachnieski, Jason

From: Szachnieski, Jason
Sent: Wednesday, January 11, 2017 4:56 PM
To: Szachnieski, Jason
Subject: FW: Revised COR 24 ASI 33

-----Original Message-----

From: billp@delucaplbg.com [<mailto:billp@delucaplbg.com>]
Sent: Wednesday, January 11, 2017 8:53 AM
To: Szachnieski, Jason
Cc: John DeLuca Jr
Subject: Re: Revised COR 24 ASI 33

Jason,

Apologies for the omission, we agree with Engineer's comment on page marked 5 about trap primers in single toilet rooms 180/182.

They are not included in this pricing and they are included in our base bid.

Thanks

Bill

[illegible]

Clarifications **No Overtime**
No Patching

Szachnieski, Jason

From: Szachnieski, Jason
Sent: Friday, December 9, 2016 2:48 PM
To: Szachnieski, Jason
Subject: FW: RE: Webster - ASI 33 Questions

From: billp@delucaplbg.com [<mailto:billp@delucaplbg.com>]
Sent: Monday, November 21, 2016 8:37 AM
To: Szachnieski, Jason
Cc: Gates, Devin; John DeLuca Jr
Subject: Fwd: RE: Webster - ASI 33 Questions

Jason,

We turned in this price Friday, but Peter had some questions.

1. Trap primer serving the loading dock shows being served by the wall hydrant and we are concerned that the trap will dry out from lack of use, there is a sink at the teaching kitchen approximately 30' away. We priced it as shown, but if this change is desirable please advise.

2. No trap primers are shown in the single toilet rooms #182 / #180. Are trap primers not wanted here ? Please advise, we priced as shown (without trap primers).

Thanks

Bill

Waste Arm Trap Primers Are
Included In The Base Project.

OK. - See DeLuca
email dated 1/11/17
Agreed

----- Forwarded Message -----

Subject: RE: Webster - ASI 33
Date: Mon, 21 Nov 2016 08:09:33 -0600
From: Peter DeLuca <peterd@delucaplbg.com>
To: 'John DeLuca' <johnd@delucaplbg.com>, billp@delucaplbg.com

In your pricing due today, note that the trap primer in the loading dock will be served by the sink in the teaching kitchen, which is about 30ft more underground piping. This is because the plans show the primer at a wall hydrant, which will never get used, and the trap will dry out.

Webster ISB ASI 33

Sheet - P0011

QTY			LABOR	
			Unit	Subtotal
Domestic Water				
Pipe - L	1/2"	120.00	0.06	7.20
Elbow	1/2"	55.00	0.40	22.00
Hanger	1/2"	11.00	1.43	15.73
<i>cap</i>	1/2"-1 1/2"	10.00	2.00	20.00
TOTALS-Domestic	Pipe Ft		Labor Hrs	
Water	120		64.93	

ASI 33

QTY			LABOR	
			Unit	Subtotal
Domestic Water				
Pipe - L	1/2"	200.00	0.06	12.00
Tee	2"	1.00	1.26	1.26
Tee	1 1/4"	1.00	1.03	1.03
Tee	1/2"	1.00	0.57	0.57
Elbow	1/2"	47.00	0.40	18.80
Hanger	1/2"	12.00	1.43	17.16
Riser Clamp	1/2"	10.00	0.27	2.70
TOTALS-Domestic Water	Pipe Ft	200	Labor Hrs	53.52

P101A Revised

Webster ISB ASI 33

Sheet - P0102.A

QTY			LABOR	
			Unit	Subtotal
Domestic Water				
Pipe - L	1/2"	40.00	0.06	2.40
Tee	3/4"	1.00	0.77	0.77
Elbow	1/2"	23.00	0.40	9.20
High-end Valve	1/2"	1.00	0.41	0.41
Hanger	1/2"	2.00	1.43	2.86
TOTALS-Domestic	Pipe Ft		Labor Hrs	
Water	40		15.64	

Sanitary Above Ground - No Hub				
Pipe	3"	15.00	0.16	2.40
Pipe	2"	19.00	0.12	2.28
Combo	3"	2.00	0.86	1.72
Combo	2"	1.00	0.57	0.57
Sweep	3"	5.00	0.60	3.00
Sweep	2"	2.00	0.42	0.84
HD Bands	3"	10.5	0.05	0.53
HD Bands	2"	5.9	0.05	0.30
Hangers	3"	2.00	1.58	3.16
RiserClamp	2"	1.00	0.33	0.33
TOTALS-San Above:				
No-Hub	Pipe Ft	Ft/day/man	Labor Hrs	
	34	18	15.12	

Sanitary Above Ground - No Hub				
Pipe	3"	15.00	0.16	2.40
Pipe	2"	10.00	0.12	1.20
Combo	3"	2.00	0.86	1.72
Combo	2"	1.00	0.37	0.57
Sweep	3"	3.00	0.60	1.80
Sweep	2"	4.00	0.42	1.68
HD Bands	3"	8.5	0.05	0.43
HD Bands	2"	7.0	0.05	0.35
Hangers	3"	2.00	1.58	3.16
RiserClamp	2"	1.00	0.33	0.33
TOTALS-San Above:				
No-Hub	Pipe Ft	Ft/day/man	Labor Hrs	
	25	15	13.64	

Webster ISB ASI 33

			LABOR	
QTY			Unit	Subtotal
Domestic Water				
Pipe - L	1/2"	75.00	0.06	4.50
Tee	3/4"	2.00	0.77	1.54
Elbow	1/2"	29.00	0.40	11.60
High-end Valve	1/2"	2.00	0.41	0.82
Hanger	1/2"	6.00	1.43	8.58
TOTALS-Domestic	Pipe Ft		Labor Hrs	
Water	75		27.04	

WEBSTER ISB FF&E PRICING SHEET
ASI 33

Adds	FF&E	Qty	U/C Labor	Ext
P101A	TP3	2	1.75	3.5
P101A	TP2	4	1.75	7
P102A P111A	FS2	1	3	3
P102A P111A	TP3	2	1.75	3.5
P102A P111A	B Arrestor	1	0.5	0.5
P102A P111A	PRV .5	1	2	2
P103A P112A	TP3	2	1.75	3.5
P103A P112A	TP2	1	1.75	1.75
P103A P112A	FS2	1	3	3
P103A P112A	B Arrestor	1	0.5	0.5
P103A P112A	PRV .5	1	2	2
				30.25

Price Quotation # B878985**FERGUSON - O'FALLON #1606**

76 HUBBLE DRIVE
O FALLON, MO 63368-8694

Phone : 636-300-5300

Fax : 636-300-3335

Bid No.....: B878985

Bid Date...: 01/17/17

Quoted By: CES

Customer:: DELUCA PLUMBING LLC
WEBSTER UNIV SCIENCE BDG
8465 DELPORT DRIVE
ST LOUIS, MO 63114

Cust Phone: 314-427-5551

Terms.....: NET 10TH PROX

Ship To.....: DELUCA PLUMBING LLC
WEBSTER UNIV SCIENCE BDG
8465 DELPORT DRIVE
ST LOUIS, MO 63114

Cust PO#..: WEBSTER

Job Name.: WEBSTER

Item	Description	Quantity	Net Price	UM	Total
	P0011				
LHARD20	1/2 X 20 L HARD COP TUBE	120	164.400	C	197.28
C9D	1/2 WROT CXC 90 ELL 5/8 OD	35	0.643	EA	22.51
CMAD	1/2 WROT CXM ADPT	10	1.333	EA	13.33
GBRNDK	LF 1/2X2 BRS NIP GBL	10	2.890	EA	28.90
FNW7015EC0200	2 COP EPOX ADJ SWVL RNG HGR	11	0.862	EA	9.48
	SUBTOTAL				271.50
	P0101A				
S2698	11-1/2 WTR SAVER TRAP PRMR CP	2	102.000	EA	204.00
PPF1500	1/2 AUTO TRAP PRMR VLV P1500	4	73.685	EA	294.74
PPPDUU	4 OPG DIST UNIT L/ FTG PLAS BODY	4	35.174	EA	140.70
NS58566LFD	LF 1/2 BRZ SS 600# SWT FP BV	4	26.750	EA	107.00
LHARD20	1/2 X 20 L HARD COP TUBE	200	164.400	C	328.80
C9D	1/2 WROT CXC 90 ELL 5/8 OD	42	0.643	EA	27.01
C4D	1/2 WROT CXC 45 ELL 5/8 OD	6	1.166	EA	7.00
FNW7023EC0050	1/2 EPOX COP RSR CLMP	10	3.418	EA	34.18
CTKKD	2X2X1/2 WROT CXCXC TEE	1	19.703	EA	19.70
CTHHD	1-1/4X1-1/4X1/2 WROT CXCXC TEE	1	11.723	EA	11.72
CMAD	1/2 WROT CXM ADPT	9	1.333	EA	12.00
B33170CTCUPLTK	2 COP PLTD ADJ SWVL RNG HGR	12	1.060	EA	12.72
CTD	1/2 WROT CXCXC TEE 5/8 OD	1	1.088	EA	1.09
	SUBTOTAL				1200.66
	P0102.A & P0111.A				

SP-91501616272426	WADE 9150-1-6-16-27-24-26-2NH SINK	1	539.220	EA	539.22
S2698	11-1/2 WTR SAVER TRAP PRMR CP	2	102.000	EA	204.00
W4480B	LF 1 WADE WTR HAMM ARRST	1	149.720	EA	149.72
CTFFD	3/4X3/4X1/2 WROT CXCXC TEE	1	2.499	EA	2.50
LHARDD20	1/2 X 20 L HARD COP TUBE	40	164.400	C	65.76
NS58566LFD	LF 1/2 BRZ SS 600# SWT FP BV	1	26.750	EA	26.75
C9D	1/2 WROT CXC 90 ELL 5/8 OD	19	0.643	EA	12.22
CMAD	1/2 WROT CXM ADPT	4	1.333	EA	5.33
WLF25AUBLPZ3D	LF 1/2 LP WTR PRV	1	144.647	EA	144.65
FNW7015EC0050	1/2 COP EPOX ADJ SWVL RNG HGR	2	0.786	EA	1.57
NHPM10	3X10 NH CI SOIL PIPE	15	924.600	C	138.69
NHPK10	2X10 NH CI SOIL PIPE	19	670.200	C	127.34
NHSSM	3 NH CI SHRT SWEEP BEND	4	17.940	EA	71.76
NHPTM	3 NH CI P TRAP	1	31.500	EA	31.50
NHCOMBM	3 NH CI COMB LONG TY	2	22.680	EA	45.36
BB3100PLTDM	3 PLTD ADJ STD CLEVIS HGR	2	3.294	EA	6.59
NHSSK	2 NH CI SHRT SWEEP BEND	2	13.740	EA	27.48
NHSTK	2 NH CI SAN TEE	1	13.620	EA	13.62
BB3373PLTDK	2 PLTD RSR CLMP	1	5.500	EA	5.50
PFNHHHDCM	3 PROFLO HD NH COUP	6	12.027	EA	72.16
PFNHHHDCCK	2 PROFLO HD NH COUP	8	10.431	EA	83.45
	SUBTOTAL				1775.17
	P0103A & P0112A				
S2698	11-1/2 WTR SAVER TRAP PRMR CP	2	102.000	EA	204.00
SP-91501616272426	WADE 9150-1-6-16-27-24-26-2NH SINK	1	539.220	EA	539.22
PPF1500	1/2 AUTO TRAP PRMR VLV P1500	1	73.685	EA	73.69
LHARDD20	1/2 X 20 L HARD COP TUBE	75	164.400	C	123.30
C9D	1/2 WROT CXC 90 ELL 5/8 OD	25	0.643	EA	16.08
CMAD	1/2 WROT CXM ADPT	2	1.333	EA	2.67
NS58566LFD	LF 1/2 BRZ SS 600# SWT FP BV	2	26.750	EA	53.50
CTFFD	3/4X3/4X1/2 WROT CXCXC TEE	2	2.499	EA	5.00
W4480B	LF 1 WADE WTR HAMM ARRST	1	149.720	EA	149.72
WLF25AUBLPZ3D	LF 1/2 LP WTR PRV	1	144.647	EA	144.65
FNW7015EC0200	2 COP EPOX ADJ SWVL RNG HGR	6	0.862	EA	5.17
C4D	1/2 WROT CXC 45 ELL 5/8 OD	2	1.166	EA	2.33
NHPM10	3X10 NH CI SOIL PIPE	15	924.600	C	138.69
NHPK10	2X10 NH CI SOIL PIPE	10	670.200	C	67.02
NHPTM	3 NH CI P TRAP	1	31.500	EA	31.50
NHCOMBM	3 NH CI COMB LONG TY	2	22.680	EA	45.36
NHSSM	3 NH CI SHRT SWEEP BEND	2	17.940	EA	35.88
BB3100PLTDM	3 PLTD ADJ STD CLEVIS HGR	2	3.294	EA	6.59
NHSSK	2 NH CI SHRT SWEEP BEND	4	13.740	EA	54.96

NHCOMBK	2 NH CI COMB LONG TY	1	14.340	EA	14.34
BB3373PLTDK	2 PLTD RSR CLMP	1	5.500	EA	5.50
PFNHHHDCM	3 PROFLO HD NH COUP	11	12.027	EA	132.30
PFNHHHDCCK	2 PROFLO HD NH COUP	9	10.431	EA	93.88
	SUBTOTAL				1945.35
	P104A				
S2698	11-1/2 WTR SAVER TRAP PRMR CP	2	102.000	EA	204.00
LHARDD20	1/2 X 20 L HARD COP TUBE	10	164.400	C	16.44
CMAD	1/2 WROT CXM ADPT	2	1.333	EA	2.67
C9D	1/2 WROT CXC 90 ELL 5/8 OD	6	0.643	EA	3.86
	SUBTOTAL				226.97
GATRC12	3/8X12 Z/PLT ATR	300	0.360	FT	108.00
P05815SPWR	3/8X1-7/8 CS ROD HGR SLV ANCR	100	50.424	C	50.42
W331755	LF 1# PREM SOLD	3	28.350	EA	85.05
BTR	B - TANK REFILL RTN ED YES NO	2	41.378	EA	82.76
TWS14	ACETYLENE TORCH KIT F/ B TANK	2	131.580	EA	263.16
O30014	8 OZ #5 PASTE FLUX	2	5.424	EA	10.85
PS546	1/2 WIRE HDL FTG BRSH	3	1.488	EA	4.46
PS0603	OPEN MESH CLO WP 1.5X10 YDS	1	10.602	EA	10.60
RAP18552	RAPTOR NH TORQ WRCH 3/8 80#	1	62.388	EA	62.39
3M05111511638	CP 25WB+ 10.1 OZ CART FIRE CAULK	4	15.460	EA	61.84
NS	4513751	2			
S025414MB1T	1/4 PB 500# FXM 1 WAY BV	2	6.220	EA	12.44
	SUBTOTAL				751.97

Subtotal: \$6171.62

Inbound Freight: \$0.00

Tax: \$0.00

Order Total: \$6171.62

Architect's Supplemental Instructions

Architect's Project No:
04561.01

Architect's ASI No: 033

Date Issued: 11/03/2016

Contract Date: 06/24/2016

Reason Code: 05 A/E Scope

Discipline Code: 11 (Plumbing)

Owner:

Webster University

Architect:

Cannon Design
1100 Clark Avenue
St. Louis, MO 63102

Contractor:

Paric Construction

Contract For: General construction

The Work shall be carried out in accordance with the following supplemental instructions issued in accordance with the Contract Documents without change in Contract Sum or Contract Time. Indicate your acceptance of these instructions for minor change to the Work as consistent with the Contract Documents and return a copy to the Architect within fourteen (14) business days of the date of issuance of these instructions. If you feel a change in Contract Sum or Contract Time is warranted, please submit an itemized quotation for the changes for approval within fourteen (14) business days of the date of issuance of these instructions prior to proceeding on the Work. Proceeding with the Work in accordance with these instructions indicates your acknowledgement that there will be no change.

Attachments:

Drawings:

P0011 Level 01 Area A/B Under Floor Plan - Plumbing
P0101.A Level 01 Area A Floor Plan - Plumbing
P0102.A Level 02 Area A Floor Plan - Plumbing
P0103.A Level 03 Area A Floor Plan - Plumbing
P0104.A Level 04 Area A Floor Plan - Plumbing
P0105.B Level 05 Roof Plan Area B - Plumbing
P0111.A Level 01 Area A Floor Plan - Plumbing Waste and Vent
P0112.A Level 02 Area A Floor Plan - Plumbing Waste and Vent
P0201.B Level 01 Area B Floor Plan - Laboratory Compressed Air and Vacuum Piping
P0401 Risers - Plumbing
P0402 Risers - Plumbing

1100 Clark Avenue
St. Louis, Missouri
63102
T: 314.241.6250
F: 314.241.2570
www.cannondesign.com

Reason Codes:
#1. Jurisdictional Agency
#2. Constructor Driven
#3. Document Inconsistency
#4. Fast Track Driven
#5. A/E Scope
#6. Owners Scope
#7. Unforeseeable Conditions
#8. Other

Discipline Codes
#1. Demo-demolition
#2. Div1-Division 1 items on the spec book
(this item is not used)
#3. Electrical
#4. Elevator
#5. Equipment (Changes in equipment,
Owner Purchased)
#6. Fire Protection

Discipline Codes
#7. General Construction (Architectural)
#8. General Conditions (Div. 1)
#9. HVAC
#10. Other
#11. Plumbing
#12. Site Work/Landscaping
#13. Structural

Architect's Supplemental Instructions

Page 2
P0404 Risers - Plumbing
P0405 Risers - Plumbing
P0406 Risers - Plumbing
P0407 Risers - Plumbing
P0408 Risers - Plumbing
P0409 Risers - Plumbing
P0601 Schedules – Plumbing
A0201 ENLARGED PLANS-LEVEL 01
<End of Drawing List>

Description: ASI – 033

ASI-033 is being issued for the purpose of addressing RFI # 261, 286, 309 and 310.

RFI-261; is requesting clarification for trap primers to the floor drains. There are five (5) different occurrences where trap primers are being required. The following is our recommendation on how to address them:

Item #1; Four (4) each Men's and Women's toilet room will be served by the lavatory tailpiece similar to J.R. Smith series 2698-1 or Wade model 4401-TS.

Items #2, #3, #4, and Item # 5; The Cadaver Lab #191, Receiving /Loading # 172, Mechanical Room # 178, Organics Bio Lab # 378 and Fire Pump Room # 166 will all require a water supply type trap primer, similar to PPP model P1-500/P2-500 with a or Sioux Chief model 695 with a distributor.

Refer to the appropriate sheets above with the exception of sheets (P0105.B and P0201.B) for all changes.

RFI-286; request a specification on the need for Overflow Roof Drains (OD-2). On sheet P0105.B, Level 05 Area B, the roof drains and overflow drains between column line 1 and column line 1.6 was miss labeled. Both the roof drain and overflow drain should have been labeled as OD-1 and RD-1. Refer to sheet P0105.B for corrections.

RFI-309; questions the need for a water supply and drain for the floor mounted Autoclave in room Lab Waste # 372B.

½" cold water to service line down in wall has been provided for the floor mounted Autoclave along with a floor sink for drains. Refer to sheets P0102.A, P0103.A, P0112.A, P0113.A, P0405 and P0408 for changes.

RFI-310; question the need for a water supply and drain for the counter top Autoclave in the Micro Bio Prep # 289A.

½" cold water service line down in wall has been provided for the counter top Autoclave along with a floor sink for drains. Refer to sheets P0101.A, P0102.A, P0111.A, P0112.A, P0404 and P0405 for changes.

Architect's Supplemental Instructions

Page 3

In addition to the above RFI's the following item was addressed but does not have a RFI number:

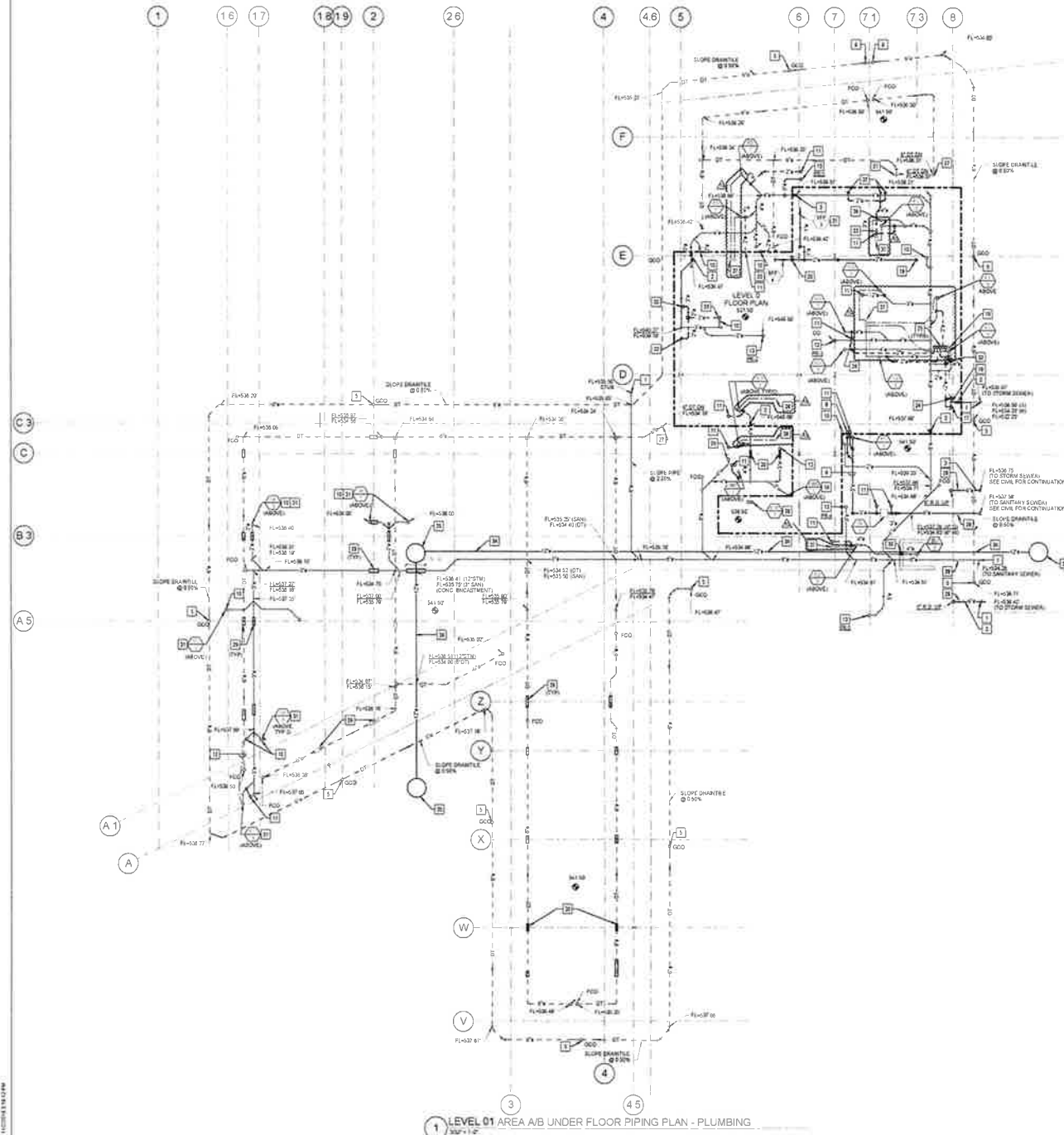
On drawing P0201.B; 1/2" oxygen service line between column line 1.6 and column line 1.7 was extended to 2 column line 1.6, drop down in wall to serve equipment on Level 1. Refer to P0201.B for changes.

A0201: Oxygen DISS gas outlet added for HPS-Equip Rack (06.10.17) in the closet within SIM LAB (133B) per Webster University's direction.

Please submit an itemized proposal for changes in contract Sum and Contract Time for proposed modifications to the Contract Documents described herein:

Issued by Architect: Michael R. Whitworth, WES

Accepted by Contractor:



- REVISIONS**
- | NO. | DATE | DESCRIPTION |
|-----|----------|--------------------------------|
| 1 | 01/15/15 | ISSUED FOR CONSTRUCTION (SP-2) |
| 2 | 01/15/15 | ISSUED FOR CONSTRUCTION (SP-2) |
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NOTES

1. UNLESS OTHERWISE NOTED, ALL PIPING SHALL BE 1/2\"/>

NO.	DATE	DESCRIPTION	DATE
15	ASHI-033 (01/15/15)	1581 208 308 & 310	03 NOV 2015
16	ASHI-034 (01/15/15)	1581 208 308 & 310	24 AUG 2015
17	ASHI-035 (01/15/15)	1581 208 308 & 310	21 JUL 2015
18	ASHI-036 (01/15/15)	1581 208 308 & 310	19 JUL 2015
19	ADDENDUM 1.1	1581 208 308 & 310	14 APR 2015
20	ADDENDUM 1.2	1581 208 308 & 310	12 APR 2015
21	ADDENDUM 1.3	1581 208 308 & 310	12 APR 2015
22	ADDENDUM 1.4	1581 208 308 & 310	06 APR 2015
23	ADDENDUM 1.5	1581 208 308 & 310	13 MAR 2015

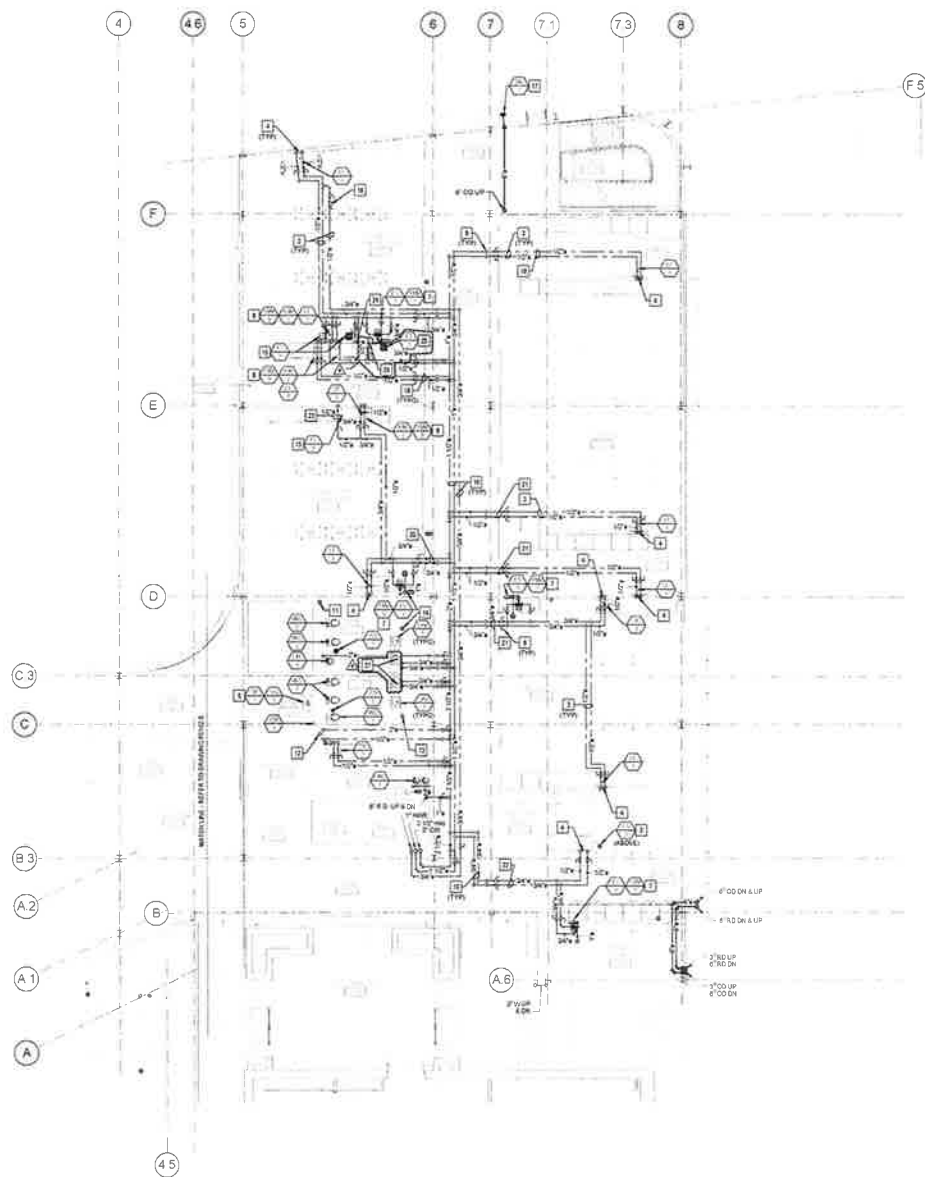


LEVEL 01 AREA A/B UNDER FLOOR PLAN - PLUMBING

Project No: 0451 01 Checked by:

P0011

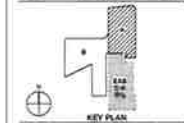
MSD P# 28874-01 MSD BASE MAP 23K3



1 LEVEL 02 AREA A FLOOR PLAN - PLUMBING
1/8" = 1'-0"

KEYED NOTES (THIS SHEET ONLY)

1. NOT USED
2. FLOOR SINK FOR USE ON LEVEL 2. COORDINATE INSTALLATION WITH THE GENERAL CONTRACTOR FOR THE FLOOR OPENING.
3. PIPING IN EACH ROOM TO BE RUN AS HIGH AS POSSIBLE TO AVOID CONFLICTS. COORDINATE INSTALLATION AND ROUTING WITH OTHER TRADES PRIOR TO ROUGH-IN.
4. 1/2" CW 1/2" HW AND 2" VENT DOWN IN WALL TO SERVE FIXTURE.
5. BREAKROOM SINKS ARE TO BE SERVED FROM WATER, WASTE, AND VENT PIPING IN TOILET ROOM CHASE.
6. PROVIDE SHUT-OFF VALVES AT THE ENTRY TO EACH ROOM.
7. EMERGENCY SHOWERS TO BE SERVED WITH 1/2" FLUSHED AND 1/2" VALVE. TYPICAL WATER TO SHOWER HEAD. FROM WALL. REFER TO CABINET. OVERHEAD PLUMBING OR ASSEMBLY TO 2" WASTE AND 2" VENT TYPICAL FOR ALL INSTALLATIONS. REFER TO DRAWING P002 DETAIL 5.
8. DICK MOUNTED EMERGENCY FIVEWAY TO BE LOCATED AT SINK. INSTALL THERMOSTATIC MIXING VALVE IN CABINET SPACE BELOW THE SINK. COORDINATE MOUNTING REQUIREMENTS OF FIVEWAY AND TANK WITH THE GENERAL CONTRACTOR TYPICAL FOR ALL INSTALLATION. REFER TO DRAWING P002 DETAIL 4.
9. DROP PIPING DOWN TO BELOW STRUCTURAL STEEL MEMBER. HOLD TIGHT TO BOTTOM OF STEEL.
10. PIPING IN CORRIDOR TO BE RUN AT BOTTOM OF STRUCTURAL STEEL CROSS MEMBERS. COORDINATE INSTALLATION AND ROUTING WITH OTHER TRADES PRIOR TO ROUGH-IN.
11. 4" SANITARY VENT RISE UP TO SINK. WATER CLOS. T'S. URINALS AND FLOOR DRAINS ON EACH LEVEL.
12. 4" SANITARY WASTE RISE UP TO SERVE WATER CLOS. T'S. URINALS AND FLOOR DRAINS ON EACH LEVEL.
13. 2" SANITARY WASTE RISE UP TO SERVE LAVATORIES ON EACH LEVEL.
14. 2" SANITARY VENT UP TO SERVE LAVATORIES ON EACH LEVEL.
15. FLOOR SINK UNDER COUNTERTOP WITH IN CASEWORK. VERIFY LOCATION WITH EXACT EQUIPMENT PLACEMENT PRIOR TO ROUGH-IN. COORDINATE FLOOR OPENING WITH THE GENERAL CONTRACTOR.
16. HOT WATER RETURN CIRCUIT SPLITTER VALVE. LOCATE IN AN ACCESSIBLE LOCATION ABOVE THE CEILING. REFER TO DRAWING P002 DETAIL 1, P002 DETAIL 2, AND P002 DETAIL 3.
17. COORDINATE AND VERIFY LOCATION OF DOWNSPOUT NOZZLE AND WALL SLEEVE PRIOR TO ROUGH-IN.
18. REFER TO DRAWING P002 WATER SUPPLY RISER 2.
19. REFER TO DRAWING P002 WATER SUPPLY RISER 2.
20. REFER TO DRAWING P002 WATER SUPPLY RISER 4.
21. REFER TO DRAWING P002 WATER SUPPLY RISER 5.
22. 1/2" HW DOWN IN WALL TO SERVE UNEL. LOCATE IN GLASS WASH. VERIFY CONNECTION POINT AND LOCATION. PROVIDE ALL FITTINGS AS REQUIRED.
23. 1/2" CW AND 1/2" HW DOWN IN WALL TO SERVE CLASS 1 BIOLOGICAL CABINET. VERIFY CONNECTION POINT AND LOCATION. PROVIDE ALL FITTINGS AS REQUIRED.
24. FLOOR SINK TO BE SERVED BY AUTOCALC. VERIFY LOCATION WITH EXACT EQUIPMENT PLACEMENT PRIOR TO ROUGH-IN. COORDINATE FLOOR OPENING WITH THE GENERAL CONTRACTOR.
25. 1/2" CW DOWN IN WALL TO SERVE COUNTERTOP OF AUTOCALC. VERIFY EXACT EQUIPMENT PLACEMENT PRIOR TO ROUGH-IN.
26. PROVIDE WASTE TYPE TRAP PRIOR (TP 3) ON LAVATORY DRAIN.



8	AS1-133 (RFI 01) (Rev. 308 & 310)	22 NOV 2016
9	AS1-104 (RFI 202 233 238 & 239)	24 AUG 2016
4	AS1-118 (RFI 113 108 & 210)	26 JUL 2016
2	AS1-102 (Rev. 214)	24 MAR 2016
2	AS1-102 (Rev. 210)	16 APR 2016
1	AS1-102 (Rev. 208)	13 JUL 2016

ISSUED FOR CONSTRUCTION (RFD) 01 MAR 2016

Rev. Description Date



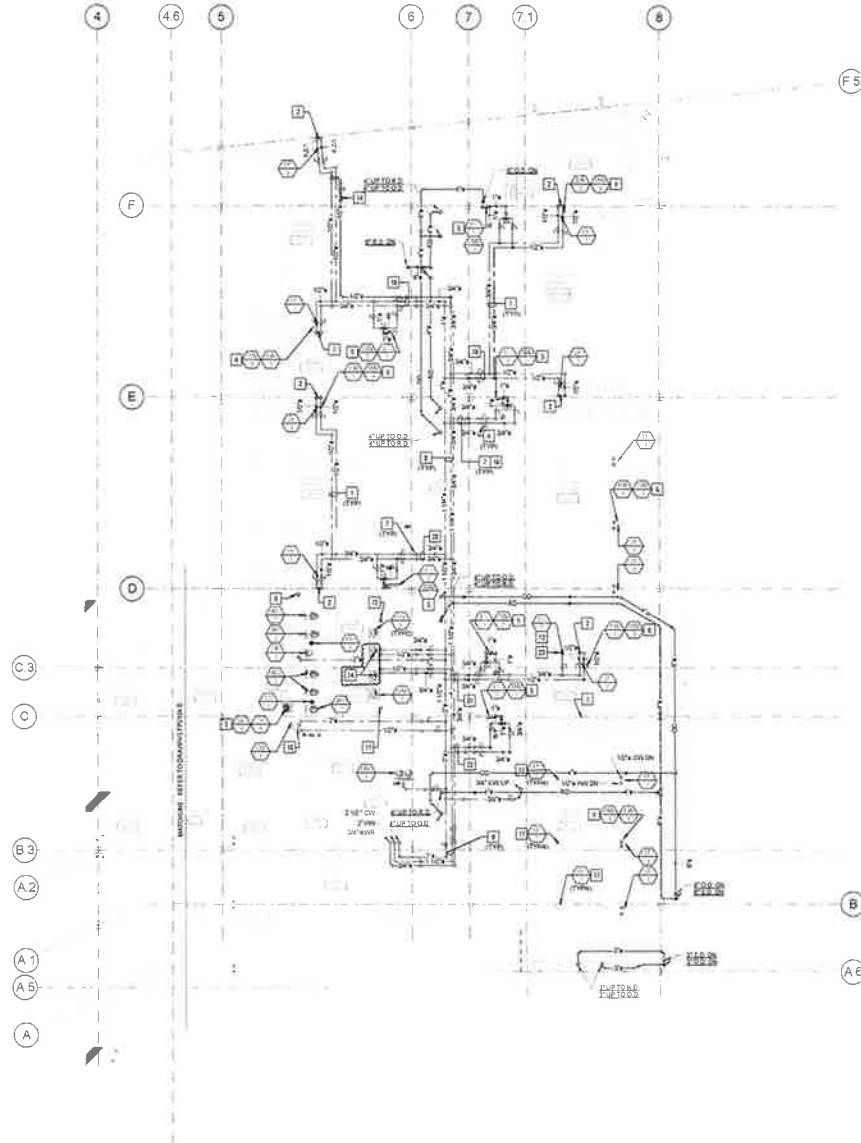
KEY PLAN

Drawing Title

LEVEL 04 AREA A FLOOR PLAN - PLUMBING

Project No. 04501.01 Checked by

P0104.A



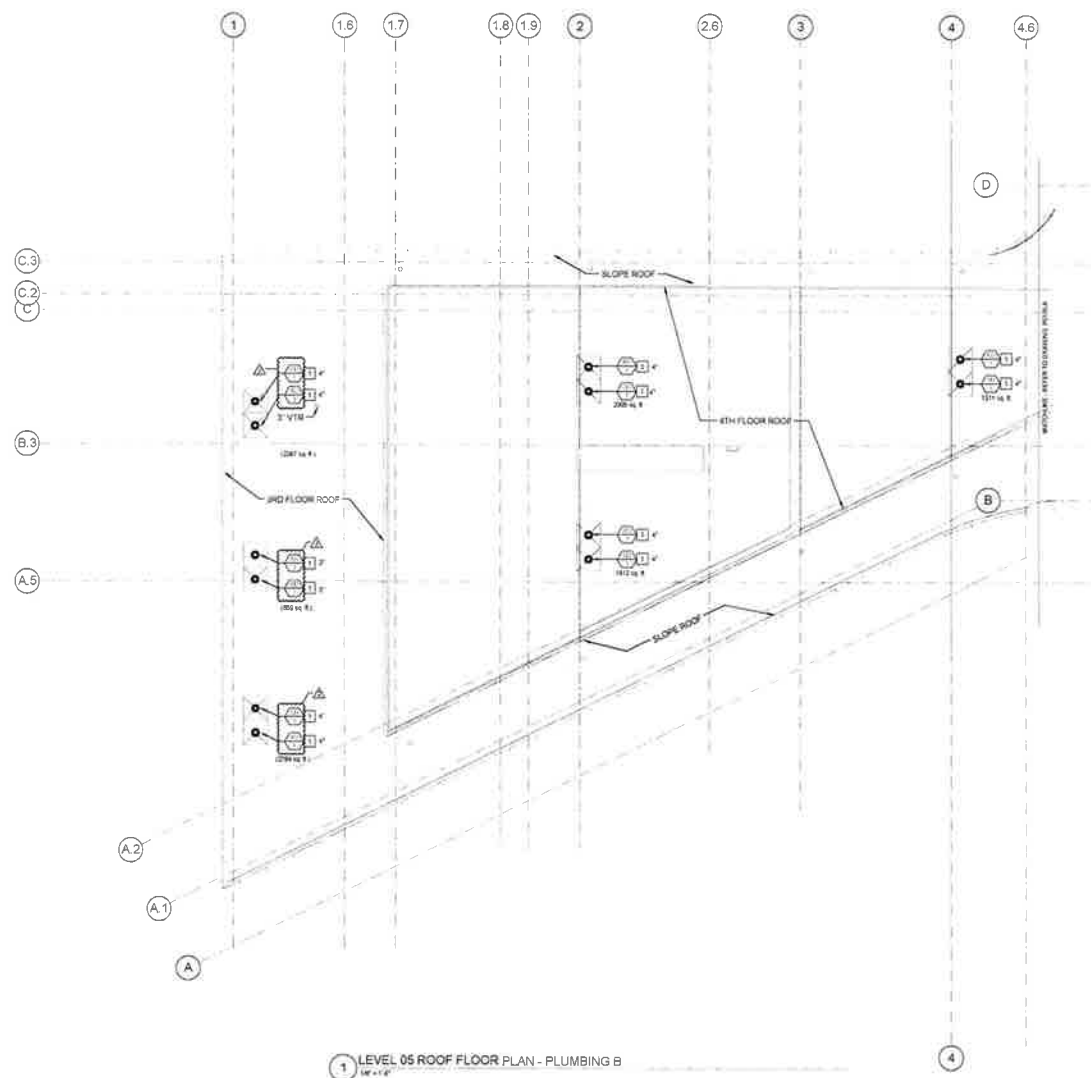
1 LEVEL 04 AREA A FLOOR PLAN - PLUMBING
10'-0" = 1'-0"

GENERAL NOTES (THIS SHEET ONLY)

1. PIPING IN EACH ROOM TO BE RUN AS HIGH AS POSSIBLE TO AVOID CONFLICTS. COORDINATE INSTALLATION AND ROUTING WITH OTHER TRADES PRIOR TO ROUGH-IN.
2. 1/2" CW 3/4" HW AND 2" VENT DOWN IN WALL TO SERVE FIXTURE.
3. BREAKROOM SINKS ARE TO BE SERVED FROM WATER WASTE AND VENT PIPING IN TOLUET ROOM CHASE.
4. PROVIDE SHUT-OFF VALVES AT THE ENTRY TO EACH ROOM.
5. EMERGENCY SHOWER TO BE SERVED WITH FIELD FLUNNISHED AND INSTALLED. 1" TEMPERED WATER TO SHOWER HEAD FROM WALL. NECESSARY CABINET EYEWASH PORTION OF ASSEMBLY TO 2" WASTE AND 2" VENT. TYPICAL FOR ALL INSTALLATIONS. REFER TO DRAWING PWD3 DETAIL 4.
6. DECK MOUNTED EMERGENCY EYEWASH TO BE LOCATED AT SINK. INSTALL THERMOSTATIC MIXING VALVE IN CABINET SPACE BELOW THE SINK. COORDINATE INSTALLING REQUIREMENTS OF EYEWASH AND TYP WITH THE GENERAL CONTRACTOR. TYPICAL FOR ALL INSTALLATIONS. REFER TO DRAWING PWD3 DETAIL 3.
7. DRAIN PIPING DOWN TO BELOW STRUCTURAL STEEL MEMBER. HOLD TIGHT TO BOTTOM OF STEEL.
8. PIPING IN CORRIDOR TO BE RUN AT BOTTOM OF STRUCTURAL STEEL CROSS MEMBERS. COORDINATE INSTALLATION WITH AND ROUTING WITH OTHER TRADES PRIOR TO ROUGH-IN.
9. 4" SANITARY VENT RISER UP TO SERVE WATER CLOSETS, URINALS AND FLOOR DRAINS ON EACH LEVEL.
10. 4" SANITARY WASTE RISER UP TO SERVE WATER CLOSETS, URINALS AND FLOOR DRAINS ON EACH LEVEL.
11. 2" SANITARY WASTE RISER UP TO SERVE LAVATORIES ON EACH LEVEL.
12. 2" SANITARY VENT UP TO LEVEL 4. REFER TO DRAWING PWD4 FOR VENT PIPING TERMINATION.
13. FLOOR SINK UNDER COUNTERTOP/IN CASEWORK. VERIFY LOCATION WITH EXACT EQUIPMENT PLACEMENT PRIOR TO ROUGH-IN. COORDINATE FLOOR OPENING WITH THE GENERAL CONTRACTOR.
14. HOT WATER RETURN CIRCUIT SHUTTER VALVE. LOCATE IN AN ACCESSIBLE LOCATION ABOVE THE CEILING. REFER TO DRAWING PWD3 DETAIL 11.
15. HOT WATER.
16. HOT WATER.
17. LAB FAUCET 1/2" FOR COLD WATER SERVICE ONLY. PROVIDE TWO FAUCETS FOR EACH CUP SINK. EXTEND CUP PIPING WITH UTILITY CHASE OF UNO SET OF LAB CASEWORK.
18. REFER TO DRAWING PWD3 WATER SUPPLY RISER 8.
19. REFER TO DRAWING PWD3 WATER SUPPLY RISER 2.
20. REFER TO DRAWING PWD3 WATER SUPPLY RISER 4.
21. REFER TO DRAWING PWD3 WATER SUPPLY RISER 2.
22. 1/2" HOT WATER IN WALL TO SERVE UNDERCOUNTER GLASS WASHES. VERIFY CONNECTION POINT TO UNIT AND LOCATION. PROVIDE ALL FITTINGS AS REQUIRED.
23. PROVIDE WASTE TYPE TRAP PRIMER (TP) IS ON LABORATORY DRAINS.

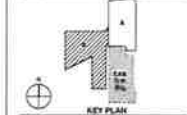
NOTE - PLUMBING NEW WORK

1. CONTRACTOR SHALL RUNNER AND INSTALL ROOF DRAINS AND OVERFLOW DRAINS. REFER TO DETAIL ON DRAWING P0101.
2. 24" CW SERVICE UP THROUGH ROOF TO SERVE NON-PRINCE SANITARY ROOM DRAINAGE. JAY R. SMITH MODEL R60 OR EQUAL. VERIFY LOCATION WITH GENERAL CONTRACTOR PRIOR TO RUN/WHIN.



1 LEVEL 05 ROOF FLOOR PLAN - PLUMBING B
1/4" = 1'-0"

2. ASB: 02/11/18 11:28 AM A. B. B.	02 NOV 2018	
1. ADDENDUM 2.2	12 APR 2018	
REVISED FOR CONSTRUCTION (ASB)	01 MAR 2018	
By	Description	Date

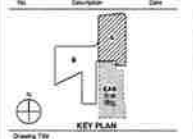


**LEVEL 05 ROOF PLAN
AREA B - PLUMBING**

Project No: 14461 (1) Checked by:

P0105.B

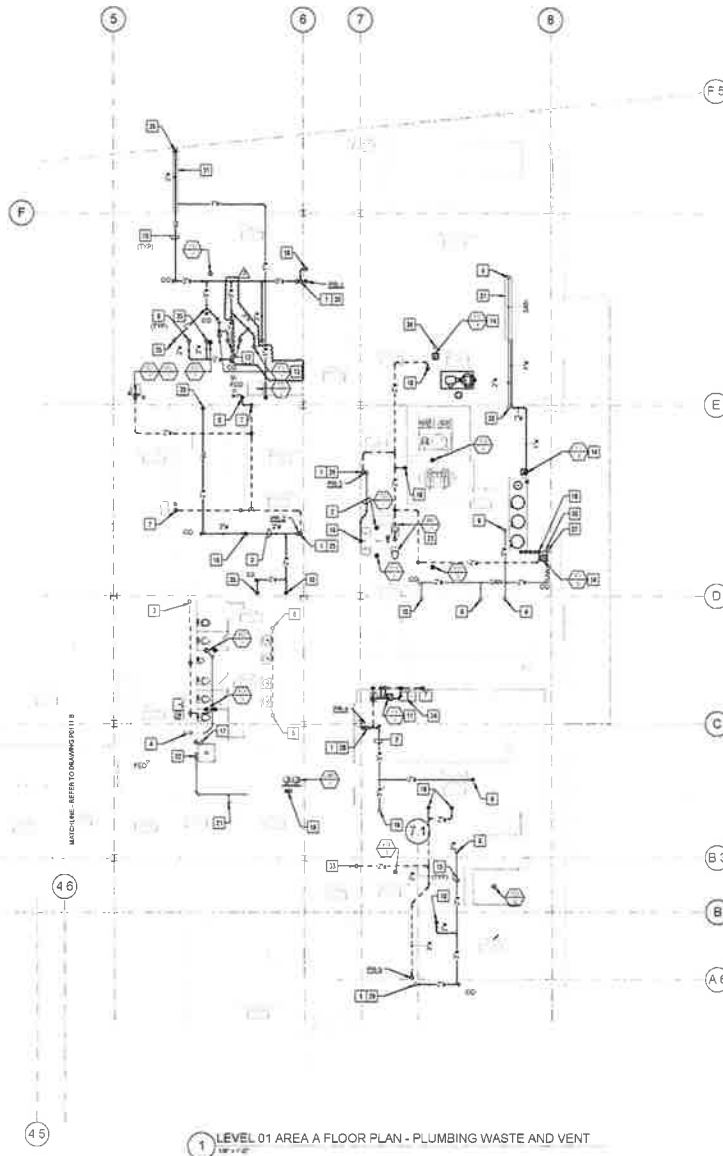
7	AS1: 033 (REV 201) 280 320 & 310	03 NOV 2016
8	AS1: 035 (REV 201) 280 320 & 310	09 SEP 2016
9	AS1: 034 (REV 201) 280 320 & 310	24 AUG 2016
10	AS1: 034 (REV 175)	21 JUL 2016
11	ADDENDUM 1	24 MAY 2016
12	ADDENDUM 2	18 APR 2016
13	ADDENDUM 3	17 MAR 2016
14	REVISION FOR CONSTRUCTION (RFP)	01 MAR 2016



LEVEL 01 AREA A FLOOR PLAN - PLUMBING WASTE AND VENT

Project No: 04561 01 Checked by:

P0111.A



1 LEVEL 01 AREA A FLOOR PLAN - PLUMBING WASTE AND VENT
1/8" = 1'-0"

REVISION NOTES (THIS SHEET ONLY)

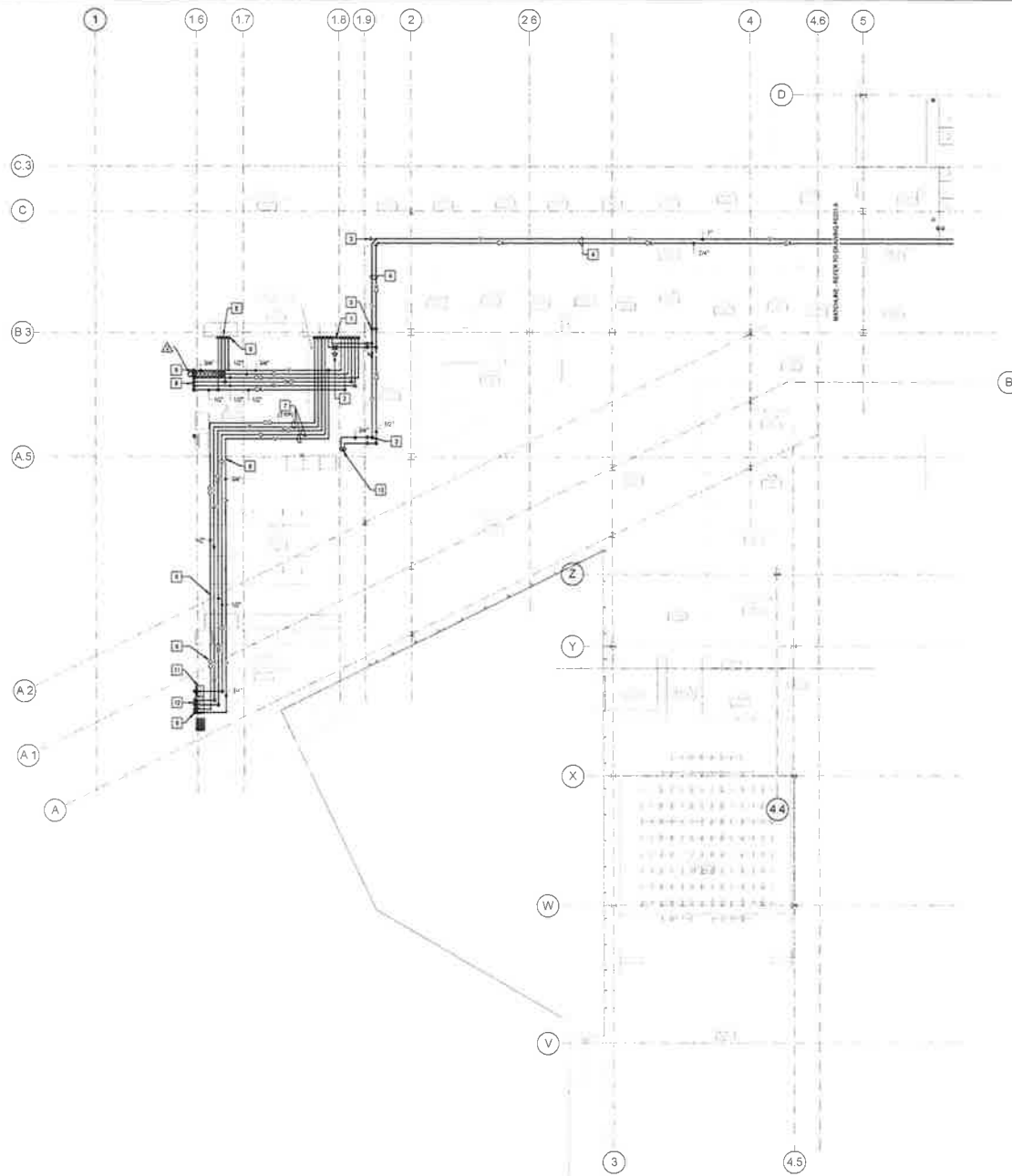
1. 2" SANITARY WASTE AND 2" SANITARY VENT RISERS
2. 2" SANITARY WASTE OFF-SET ABOVE THE CEILING TO CONTINUE DOWN TO LEVEL 0
3. 4" SANITARY VENT RISER UP AND DOWN
4. 4" SANITARY WASTE UP AND DOWN. REFER TO DRAWING POINT FOR INDEX DIAGRAM
5. 2" SANITARY WASTE UP AND DOWN. REFER TO DRAWING POINT FOR INDEX DIAGRAM
6. 2" SANITARY VENT UP AND DOWN
7. 2" SANITARY VENT DOWN IN WALL TO SERVE LABORATORY SINK
8. 2" SANITARY VENT DOWN IN WALL TO SERVE EMERGENCY SHOWER
9. 2" SANITARY WASTE UP TO LEVEL 2 LAB SINK
10. 2" SANITARY WASTE UP TO LEVEL 2 EMERGENCY SHOWER EYEWASH STATION. REFER TO DRAWING POINT DETAIL 3' P043
11. FLOOR SINK TO BE LOCATED BELOW THE CASEWORK TO ACCEPT DISCHARGE FROM THE DISHWASHER AND UNDER COUNTER ICE MAKER. COORDINATE LOCATION WITH CABINET AND APPLIANCES
12. 2" SANITARY VENT UP TO LEVEL 2. ALIGN WITH CASEWORK AND WALL ABOVE
13. FLOOR SINK SET TO SERVE LEVEL 2. COORDINATE LOCATION OF FLOOR SINK WITH CASEWORK ABOVE AND WITH ABUSE CEILING CONDITIONS ON THIS LEVEL
14. FLOOR SINK SET TO SERVE THIS LEVEL
15. PIPING IN EACH ROOM TO BE RUN AS HIGH AS POSSIBLE TO AVOID CONFLICTS. COORDINATE INSTALLATION AND ROUTING WITH OTHER TRADES PRIOR TO ROUGH IN
16. 2" SANITARY WASTE AND 2" SANITARY VENT RISERS TO SERVE ELECTRIC WATER COOLERS ON EACH LEVEL. REFER TO DRAWING POINT FOR WASTE AND VENT RISERS
17. 2" SANITARY WASTE AND 2" VENT RISERS TO SERVE MOP BASIN ON LEVELS 1 AND 3 AND COUNTER TOP SINK ON LEVEL 2. REFER TO DRAWING POINT FOR WASTE AND VENT RISER
18. 2" VENT UP FROM LEVEL 2. REFER TO DRAWING POINT
19. 2" WASTE DOWN TO LEVEL 2. REFER TO DRAWING POINT FOR CONTRADICTION
20. 2" WASTE DOWN TO LEVEL 2. REFER TO DRAWING POINT FOR CONTRADICTION
21. 2" DISCHARGE FROM ELEVATOR SUMP PUMP. EXTEND TO ABOVE THE CEILING OF LEVEL 1 TO JANITOR CLOSET ITS
22. TERMINATE ELEVATOR SUMP PUMP DISCHARGE AT THE MOP BASIN WITH AN IN DIRECT WASTE INTO THE BASIN
23. REFER TO DRAWING POINT DETAIL 3' P043 FOR PLUMBING RISER DIAGRAM
24. REFER TO DRAWING POINT DETAIL 3' P043 FOR PLUMBING RISER DIAGRAM
25. REFER TO DRAWING POINT SANITARY WASTE AND VENT RISER DIAGRAM 2-2
26. REFER TO DRAWING POINT SANITARY WASTE AND VENT RISER DIAGRAM 3-2
27. REFER TO DRAWING POINT SANITARY WASTE AND VENT RISER DIAGRAM 4-4
28. REFER TO DRAWING POINT SANITARY WASTE AND VENT RISER DIAGRAM 4-1
29. REFER TO DRAWING POINT SANITARY WASTE AND VENT RISER DIAGRAM 5-1
30. REFER TO DRAWING POINT SANITARY WASTE AND VENT RISER DIAGRAM 5-1
31. TROUGH SAFETY VAN TO BE SUSPENDED BELOW SANITARY WASTE PIPING. EXTEND 1" DRAIN TO SANITARY FLOOD RECEPTOR. REFER TO PLUMBING DRAWING P003 DETAIL 4
32. NOT USED
33. 2" VENT DOWN IN WALL TO SERVE FLOOR DRAIN IN LOADING DOCK
34. 4" CL. STANDPIPE FOR SPRINKLER DRAIN ULUS 24 AFF
35. 2" SANITARY WASTE UP TO POINT OF USE NEUTRALIZATION TANK



- KEYED NOTES: (THIS SHEET ONLY)**
1. SANITARY WASTE AND 3. SANITARY VENT RISERS.
 2. SANITARY WASTE AND 3. SANITARY VENT DOWN FROM LEVEL 3. DO NOT SET ABOVE THE CEILING TO CONTINUE DOWN.
 4. SANITARY VENT RISER UP AND DOWN.
 5. SANITARY WASTE UP AND DOWN. REFER TO DRAWING P0112 FOR RISER DIAGRAMS.
 6. SANITARY VENT UP AND DOWN.
 7. SANITARY VENT DOWN RISER TO SERVE LABORATORY SINK.
 8. SANITARY WASTE SINK RISER TO SERVE EMERGENCY SHOWER.
 9. SANITARY WASTE UP TO LEVEL 3 LAB SINK.
 10. SANITARY WASTE UP TO LEVEL 3 EMERGENCY SHOWER & YURADE WASH STATION. REFER TO DRAWING P043 DETAIL 3.
 11. FLOOR SINK TO BE LOCATED BELOW THE CASEWORK TO ACCEPT DISCHARGE FROM THE LAB EQUIPMENT. COORDINATE LOCATION WITH CASEWORK.
 12. SANITARY VENT UP TO LEVEL 3. RISER WITH CASEWORK AND WALL ABOVE. REFER TO DRAWING P043 DETAIL 3.
 13. FLOOR SINK SET TO SERVE LEVEL 3. COORDINATE LOCATION OF FLOOR SINK WITH CASEWORK RISER AND WITH ABOVE CEILING CONDITIONS ON THIS LEVEL.
 14. NOT USED.
 15. PIPING IN EACH ROOM TO BE RUN AS HIGH AS POSSIBLE TO AVOID CONFLICTS. COORDINATE INSTALLATION AND ROUTING WITH OTHER TRADES. REFER TO ROOM IN.
 16. 1. SANITARY WASTE AND 2. VENT RISERS TO SERVE ELECTRIC WATER COOLERS ON EACH LEVEL. REFER TO DRAWING P041 FOR WASTE AND VENT RISER.
 17. 1. SANITARY WASTE AND 2. VENT RISERS TO SERVE MOP BASINS ON LEVELS 1 AND 2 AND COURT/STAIR SINK ON LEVEL 2. REFER TO DRAWING P041 FOR WASTE AND VENT RISER.
 18. 1. SANITARY WASTE AND 2. SANITARY VENT DOWN.
 19. REFER TO DRAWING P044 SANITARY WASTE AND VENT RISER DIAGRAM 1-2.
 20. REFER TO DRAWING P044 SANITARY WASTE AND VENT RISER DIAGRAM 3-1.
 21. REFER TO DRAWING P044 SANITARY WASTE AND VENT RISER DIAGRAM 3-2.
 22. REFER TO DRAWING P044 SANITARY WASTE AND VENT RISER DIAGRAM 4-2.
 23. REFER TO DRAWING P044 SANITARY WASTE AND VENT RISER DIAGRAM 5-2.
 24. 3. OIL/ON NEUTRALIZATION TANK WITH SLIP ON COVER. LOCATED BELOW THE COURT/STAIR. REFER TO DRAWING P044 DETAILS 1 AND 2 FOR P044 DIAGRAM INSTALLATION.
 25. 2. ACID VENT DOWN IN WALL TO SERVE NEUTRALIZATION TANK.
 26. 2. ACID VENT RISER.
 27. 2. SANITARY WASTE UP TO ROOF OF USE NEUTRALIZATION TANK.
 28. FLOOR SINK TO SERVE COURT/STAIR AUTOLAVES. VERIFY LOCATION WITH EXACT EQUIPMENT PLACEMENT PRIOR TO ROUGH-IN. COORDINATE FLOOR OPENING WITH GENERAL CONTRACTOR.
 29. FLOOR SINK TO SERVE FLOOR MOUNTED AUTOLAVES. VERIFY LOCATION WITH EXACT EQUIPMENT PLACEMENT PRIOR TO ROUGH-IN. COORDINATE FLOOR OPENING WITH GENERAL CONTRACTOR.
 30. 1/2\"/>

1 LEVEL 02 AREA A FLOOR PLAN - PLUMBING WASTE AND VENT
1/8\"/>

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1 LEVEL 01 AREA B FLOOR PLAN - LABORATORY COMPRESSED AIR AND VACUUM PIPING
1/8" = 1'-0"

OWNER NOTES (THIS SHEET ONLY)

1. MEDICAL GAS ZONE VALVES FOR REDUCED FLOW TO WALLS TO SERVE MEDICAL GASES INDICATED. REDUCED FLOW VALVES SHALL BE VALVE TYPE: 1/2" VALVE WITH ONE 3/8" VALVE FOR VACUUM ASSEMBLY TO BE COMPLETE WITH MONITORING PRESSURE GAUGE. REFER TO SPECIFICATION SECTION 220513 GAS PIPING FOR LABORATORY AND HEALTHCARE FACILITIES FOR THE LOCATION AND MOUNTING HEIGHT.
2. INSTALL SMALL STAINLESS STEEL AIR PRESSURE REGULATOR (BLACK & VEATCH MODEL # 1270-100) ADJUSTABLE PRESSURE IN P.S.D. TO VERY RANGE. PROVIDE WITH MODEL # 120119-20 1/2" TO 1/2" P.S.D. PRESSURE GAUGE. MOUNT ABOVE THE CEILING IN AN ACCESSIBLE LOCATION. POSITION FOR FULL ACCESS TO THE ADJUSTMENT AND GAUGE. SEE TYPICAL.
3. PROVIDE CLEANOUT PLUG IN PIPING.
4. PIPING IN CORRIDOR TO BE RUN AT BOTTOM OF STRUCTURAL STEEL CHOLE MEMBERS. COORDINATE INSTALLATION AND ROUTING WITH OTHER TRADES PRIOR TO ROUGH IN.
5. PIPING IN CORRIDOR TO BE RUN AT BOTTOM OF STRUCTURAL STEEL MEMBER. HOLD TIGHT TO BOTTOM OF STEEL.
6. HOLD PIPING TIGHT TO BOTTOM OF STRUCTURAL MEMBER.
7. PIPING IN EACH ROOM TO BE RUN AS HIGH AS POSSIBLE TO AVOID CONFLICTS. COORDINATE INSTALLATION AND ROUTING WITH OTHER TRADES PRIOR TO ROUGH IN.
8. EXTEND PIPING DOWN IN WALL TO WALL MOUNTED D.I.S. SERVICE OUTLETS FOR THE MEDICAL GASES INDICATED. REFER TO SPECIFICATION SECTION 220513 GAS PIPING FOR LABORATORY AND HEALTHCARE FACILITIES FOR THE LOCATION AND MOUNTING HEIGHT.
9. PROVIDE D.I.S. SERVICE FITTING FOR SCRAMBLING EXTERIOR CONNECTION.
10. NOT USED.
11. MANUFACTURED STEEL GAS CYLINDER CABINET FOR TWO GASOLINE CYLINDERS. SERVICE PIPING TO EXTEND DOWN RUDE WALL AND ENTER THE CABINET FROM INSIDE THE RUDE WALL. PIPING TO BE FURNISHED AND INSTALLED BY OTHERS. COORDINATE PIPE ENTRY PRIOR TO ROUGH IN. TERMINATE PIPING IN CABINET TO ACCEPT CONNECTION FROM CYLINDER REGULATOR ASSEMBLY.
12. MANUFACTURED STEEL GAS CYLINDER CABINET FOR THREE MEDICAL GAS CYLINDERS. HYDROGEN NITROGEN OXYGEN AND CARBON DIOXIDE. SERVICE PIPING TO EXTEND DOWN RUDE WALL AND ENTER THE CABINET FROM INSIDE THE RUDE WALL. PIPING TO BE FURNISHED AND INSTALLED BY OTHERS. COORDINATE PIPE ENTRY PRIOR TO ROUGH IN. TERMINATE PIPING IN CABINET TO ACCEPT CONNECTION FROM CYLINDER REGULATOR ASSEMBLY.
13. EXTEND VACUUM AND COMPRESSED AIR PIPING UP TO LEVEL 2. ALIGN WITH WALL ABOVE. REFER TO DRAWING P0201.2 FOR CONTINUATION.

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2 ASH 032 (R) 261 268 X 4 2103 03 NOV 2018
1 AUGUST 2018 17 MAY 2018
ISSUED FOR CONSTRUCTION (R) 01 MAY 2018

No. Description Date



LEVEL 01 AREA B FLOOR PLAN - LABORATORY COMPRESSED AIR AND VACUUM PIPING

Project No. 04/01/01 Checked by

P0201.B

1	ASB-023 (R) 261.280.300 & 310	03 NOV 2016
2	ADDENDUM 2A	24 MAY 2016
3	ADDENDUM 2.1	17 MAR 2016
4	ISSUED FOR CONSTRUCTION (RPT)	01 MAR 2016
No.	Description	Date

Drawing Title

RISERS - PLUMBING

Project No. 04581-01

Created by

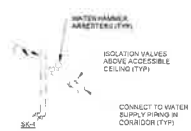
P0401



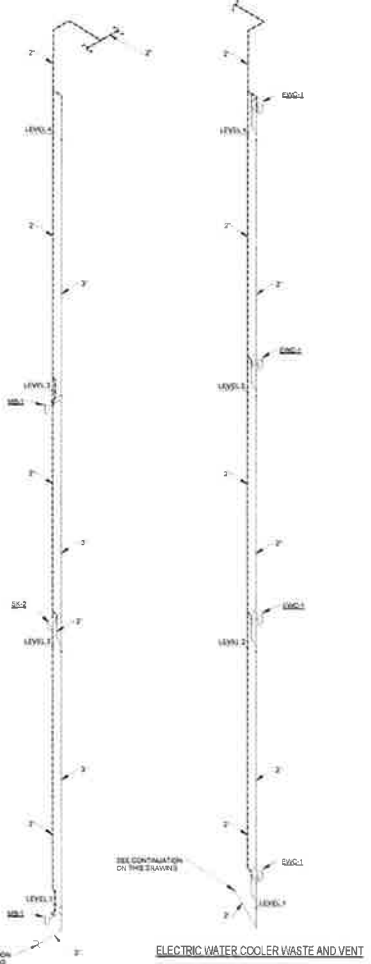
TYPICAL PUBLIC TOILET ROOM WATER SUPPLY DIAGRAM



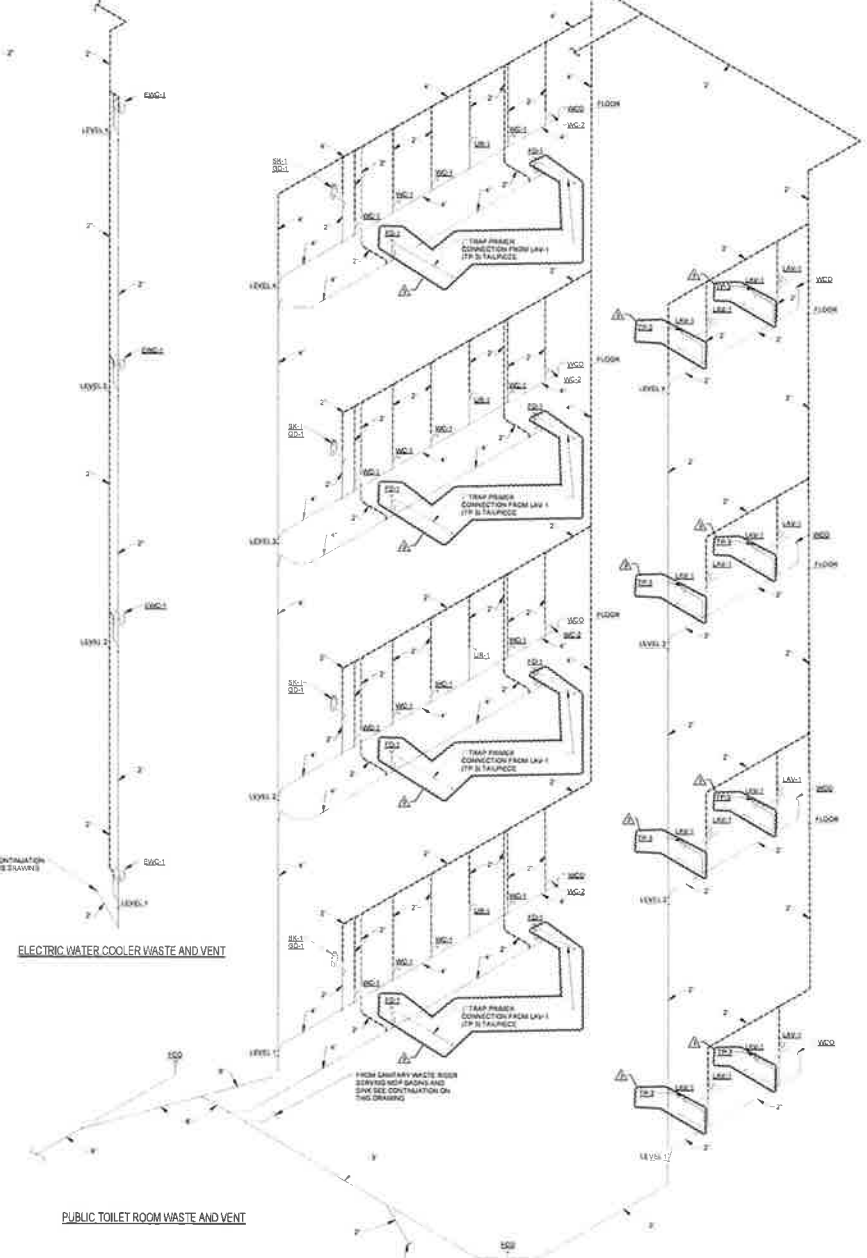
TYPICAL MOP BASIN WATER SUPPLY DIAGRAM



ROOM 275 SINGLE BOWL SINK WATER SUPPLY DIAGRAM



MOP BASIN AND SINK WASTE AND VENT



ELECTRIC WATER COOLER WASTE AND VENT

PUBLIC TOILET ROOM WASTE AND VENT

FROM SANITARY WASTE RISER
SERVING ELECTRIC WATER COOLERS
SEE CONTINUATION ON THIS DRAWING

1 CENTER CORE PLUMBING RISERS
P0401 SCALE HTS

4	AS-103 (RFP 24) 2ND 3RD & 3101	03 NOV 2018
2	ADDENDUM 2.4	24 MAY 2018
2	ADDENDUM 2.2	18 APR 2018
1	ADDENDUM 2.1	17 MAR 2018
	ISSUED FOR CONSTRUCTION (SPR)	01 MAR 2018
No.	Description	Date

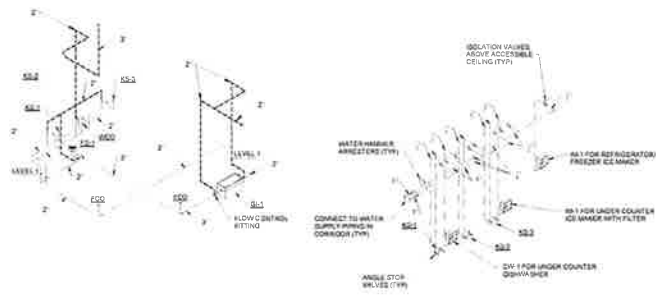
Drawing Title

RISERS - PLUMBING

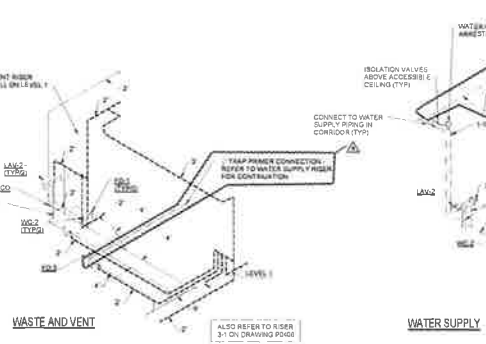
Project No. 0001 01 Checksheet

P0402

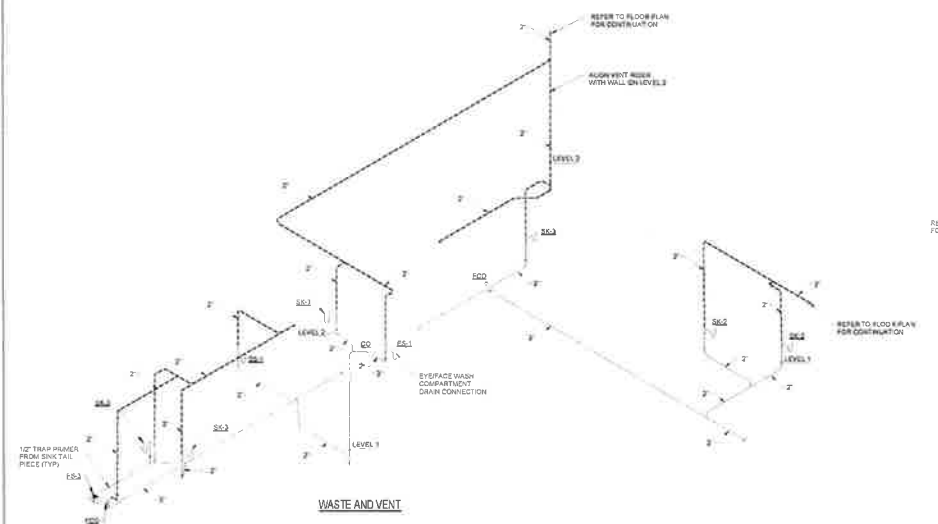
MSD P# 28874-01 MSD BASE MAP 23K3



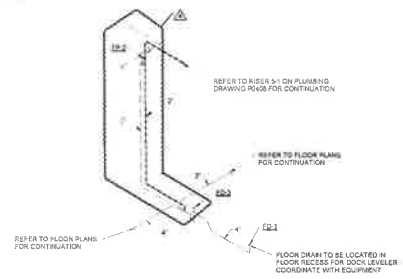
1 TEACHING KITCHEN 174 PLUMBING RISERS
P0402 SCALE NTS



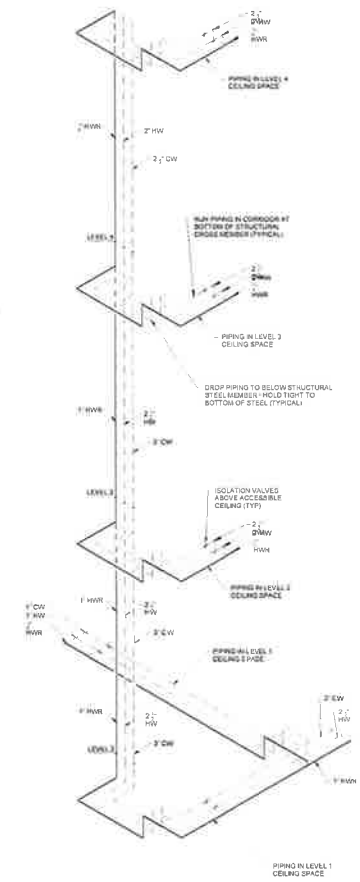
2 TOILET ROOMS 180 AND 182 PLUMBING RISERS
P0402 SCALE NTS



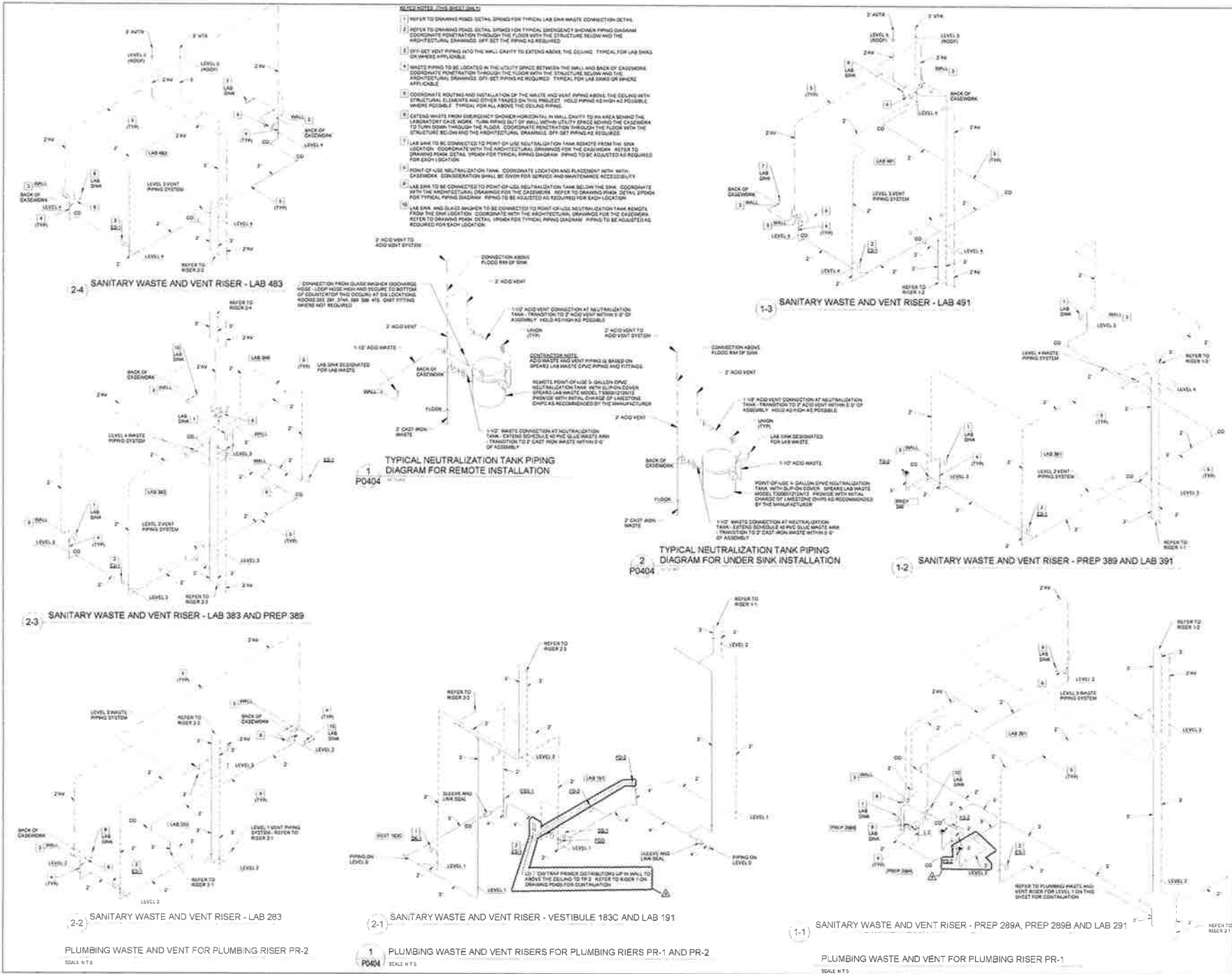
3 LEVEL 1 AND LEVEL 2 AREA B RISERS
P0402 SCALE NTS



5 LOADING DOCK 172 FLOOR DRAINS
P0402 SCALE NTS



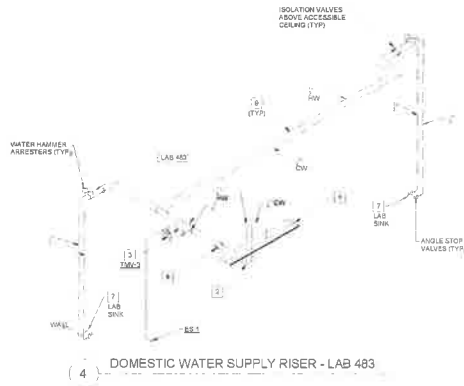
4 DOMESTIC WATER SERVICE BUILDING RISER
P0402 SCALE NTS



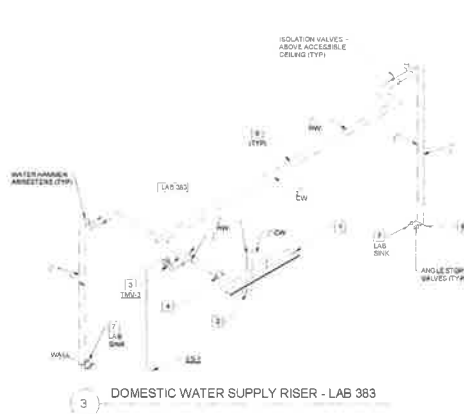
C. Cannon Design 2016
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11/20/2016 3:48 PM

REVISIONS (THIS SHEET ONLY)

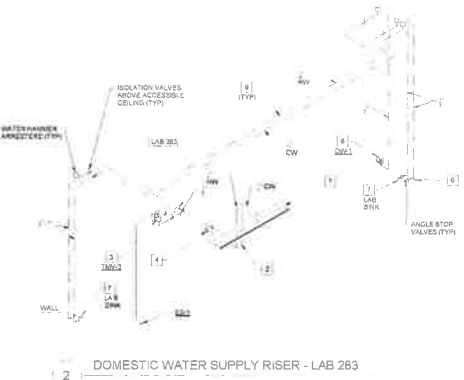
1. DOMESTIC WATER PIPING IN THE CORRIDOR TO BE RUN AT THE BOTTOM OF THE STRUCTURAL CROSS MEMBERS. COORDINATE INSTALLATION AND ROUTING WITH OTHER TRADES ON THIS PROJECT.
2. DRINKING FOUNTAIN BELOW THE STRUCTURAL STEEL MEMBER. HOLD TIGHT TO BOTTOM OF RTES.
3. THERMOSTATIC MIXING VALVE (TMV) & SERVING THE EMERGENCY SHOWER TO BE LOCATED ABOVE THE ACCESSIBLE CEILING. REFER TO DRAWING P0405 DETAIL 3000 FOR PIPING DIAGRAM OF EMERGENCY SHOWER. VERIFY LOCATION AND PIPING CONFIGURATION PRIOR TO ROUGH-IN.
4. PROVIDE SHUT-OFF VALVES AT THE ENTRY TO EACH ROOM.
5. REFER TO DRAWING P0405 DETAIL 1000 FOR HOT WATER RETURN PIPING DIAGRAM.
6. WATER PIPING CONNECTION TO THERMOSTATIC MIXING VALVE (TMV) SERVING THE DECK MOUNTED EMERGENCY SHOWER. REFER TO DRAWING P0405 DETAIL 3000 FOR PIPING DIAGRAM OF EMERGENCY SHOWER. VERIFY LOCATION AND PIPING CONFIGURATION PRIOR TO ROUGH-IN.
7. LAB SINK WITH LAB FAUCET TYPE LF-1.
8. WATER CONNECTION FOR UNDER COUNTER GLASS WASHER. COORDINATE LOCATION AND INSTALLATION WITH EQUIPMENT AND CASEWORK.
9. DOMESTIC WATER PIPING IN EACH ROOM TO BE RUN AS HIGH AS POSSIBLE TO AVOID CONFLICTS. COORDINATE INSTALLATION WITH OTHER TRADES ON THIS PROJECT PRIOR TO ROUGH-IN.
10. WATER CONNECTION FOR ICE MACHINE. COORDINATE LOCATION AND INSTALLATION WITH EQUIPMENT AND CASEWORK.
11. WATER CONNECTION FOR CLASS 1 BIOLOGICAL CABINET. COORDINATE LOCATION AND INSTALLATION WITH EQUIPMENT AND CASEWORK.
12. WATER CONNECTION FOR FLUOR MOUNTED AUTOCLAVE. COORDINATE LOCATION AND INSTALLATION WITH EQUIPMENT AND CASEWORK. PROVIDE WATER OUTLET BOX SIMILAR TO 200-1.



DOMESTIC WATER SUPPLY RISER - LAB 483



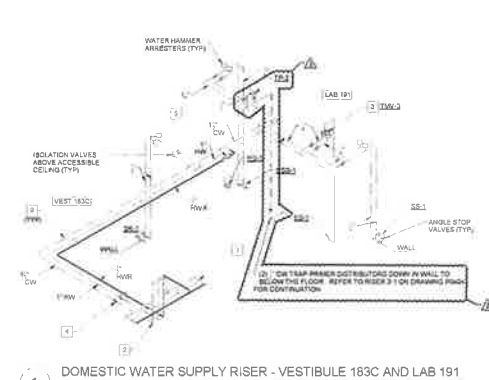
DOMESTIC WATER SUPPLY RISER - LAB 383



DOMESTIC WATER SUPPLY RISER - LAB 283

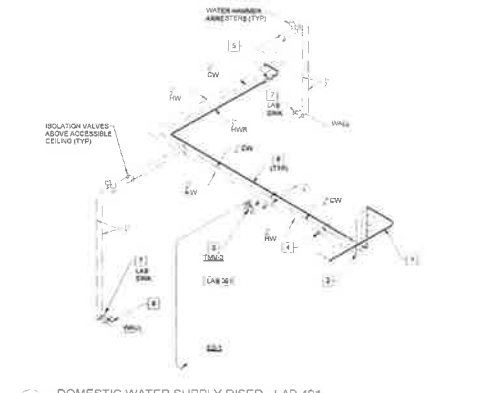


DOMESTIC WATER SUPPLY RISER - PREP 389

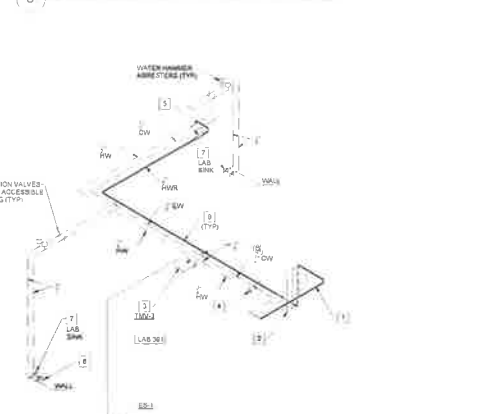


DOMESTIC WATER SUPPLY RISER - VESTIBULE 183C AND LAB 191

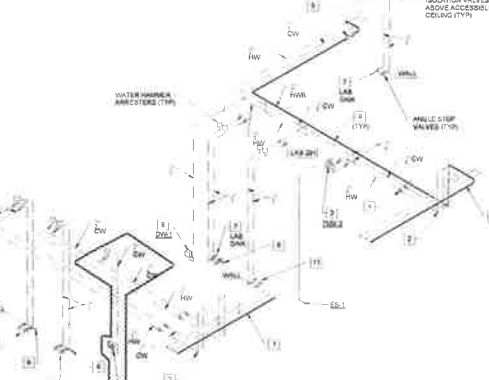
DOMESTIC WATER SUPPLY RISER DIAGRAMS
SCALE: N.T.S.



DOMESTIC WATER SUPPLY RISER - LAB 491



DOMESTIC WATER SUPPLY RISER - LAB 391



DOMESTIC WATER SUPPLY RISER - PREP 289A - PREP 289B AND LAB 291

4. ADOPTED (REVISED) DATE	02 NOV 2019	
3. ADOPTED (REVISED) DATE	08 SEP 2018	
2. ADOPTED (REVISED) DATE	30 MAY 2016	
1. ADOPTED (REVISED) DATE	18 APR 2016	
ISSUED FOR CONSTRUCTION (REVISED)	01 MAR 2016	
Rev.	Description	Date

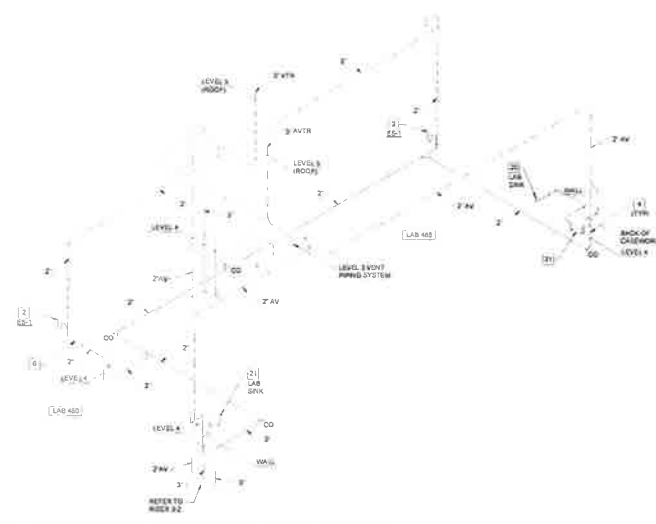
Drawing Title
RISERS - PLUMBING

Project No. 04581.01 Checked by

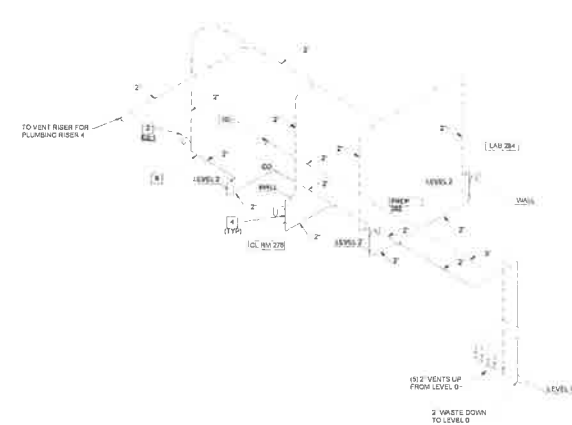
P0406

GENERAL NOTES (THIS SECTION ONLY)

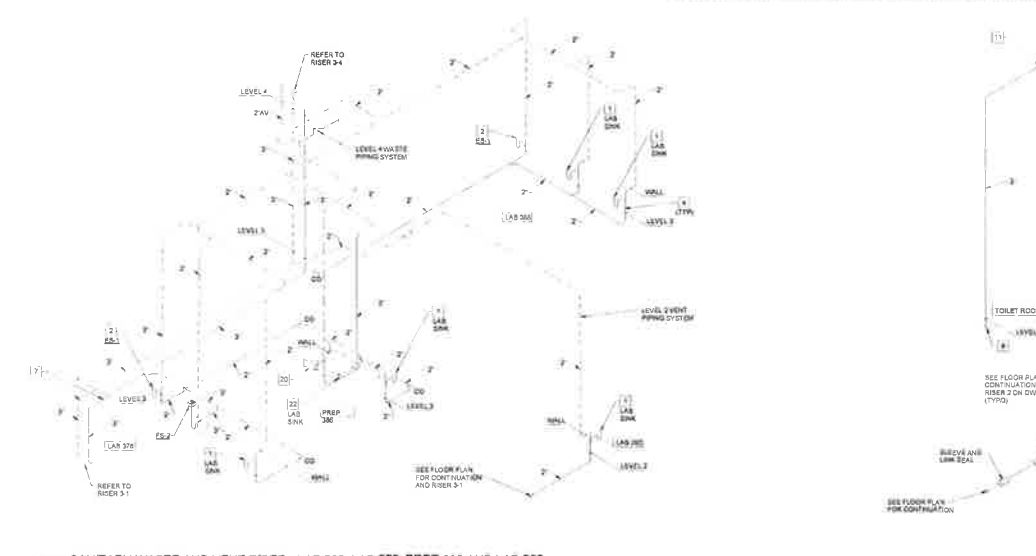
1. REFER TO DRAWING P0406 DETAIL SPODES FOR TYPICAL LAB SINK WASTE CONNECTION DETAIL.
2. REFER TO DRAWING P0406 DETAIL SPODES FOR TYPICAL EMERGENCY SHOWER RINSING DIAGRAM COORDINATE PENETRATION THROUGH THE FLOOR WITH THE STRUCTURE BELOW AND THE ARCHITECTURAL DRAWINGS. OFF-SET PIPING AS REQUIRED.
3. 0" SET VENT PIPING INTO THE WALL CAVITY TO EXTEND ABOVE THE CEILING. TYPICAL FOR LAB SINKS ON WHERE APPLICABLE.
4. WASTE PIPING TO BE LOCATED IN THE UTILITY SPACE BETWEEN THE WALL AND BACK OF CABINETS. COORDINATE PENETRATION THROUGH THE FLOOR WITH THE STRUCTURE BELOW AND THE ARCHITECTURAL DRAWINGS. OFF-SET PIPING AS REQUIRED. TYPICAL FOR LAB SINKS ON WHERE APPLICABLE.
5. COORDINATE ROUTING AND INSTALLATION OF THE WASTE AND VENT PIPING ABOVE THE CEILING WITH STRUCTURAL ELEMENTS AND OTHER TRADERS ON THE PROJECT. HOLD PIPING AS HIGH AS POSSIBLE, WHERE POSSIBLE. TYPICAL FOR ALL ABOVE THE CEILING PIPING.
6. EXTEND WASTE FROM EMERGENCY SHOWER HORIZONTAL IN WALL CAVITY TO AN AREA BEHIND THE LABORATORY CASE WORK. TURN PIPING OUT OF WALL WITHIN UTILITY SPACE, SPODE THE CABINETS TO TURN DOWN THROUGH THE FLOOR. COORDINATE PENETRATION THROUGH THE FLOOR WITH THE STRUCTURE BELOW AND THE ARCHITECTURAL DRAWINGS. OFF-SET PIPING AS REQUIRED.
7. 3" WASTE AND 3" VENT TO BE OFF-SET AT LEVEL 2 TO CONTINUE DOWN. COORDINATE INSTALLATION AND ROUTING WITH STRUCTURE AND BUILDING CONDITIONS.
8. 2" VENT IN PLUMBING CHASE SERVING PLUMBING FIXTURE IN TOILET ROOMS 180/182.
9. 2" WASTE DOWN TO LEVEL 0 IN PLUMBING CHASE OF TOILET ROOMS 180/182.
10. 2" VENT EXTENDED HIGH IN SPACE.
11. 3" WASTE TO BE OFF-SET AT LEVEL 1 TO CONTINUE DOWN. COORDINATE INSTALLATION AND ROUTING WITH STRUCTURE AND BUILDING CONDITIONS.
12. 2" VENT UP FROM LEVEL 0 SERVING FLOOR DRAIN IN MECHANICAL ROOM 116.
13. 2" VENT UP FROM LEVEL 0 SERVING FLOOR SINK IN FIRE PUMP ROOM 184 AND FLOOR DRAIN ON LEVEL 0.
14. 2" VENT FROM LEVEL 0 FLOOR DRAIN.
15. 2" VENT FROM SUMP PUMP SP-3 ON LEVEL 0.
16. 2" VENT FROM SUMP PUMP SP-1 & SP-2 ON LEVEL 0.
17. 2" VENT FROM SAND INTERCEPTION ON LEVEL 0.
18. 2" PUMP DISCHARGE FROM SUMP PUMP SP-3 ON LEVEL 0. TERMINATE TO FLOOR SINK 1-9-3 ON LEVEL 1 AS AN INDIRECT WASTE.
19. 4" HIGH CAST IRON OPEN STANDPIPE DRAIN, 18" TALL OR PIPE TWO FEET ABOVE FINISHED FLOOR. COORDINATE LOCATION WITH THE GENERAL CONTRACTOR AND FIRE SUPPRESSION CONTRACTOR.
20. LAB SINK TO BE CONNECTED TO POINT-OF-USE NEUTRALIZATION TANK. REPORT FROM THE SINK LOCATION. COORDINATE WITH THE ARCHITECTURAL DRAWINGS FOR THE CASWORK. REFER TO DRAWING P0406 DETAIL SPODES FOR TYPICAL PIPING DIAGRAM. PIPING TO BE ADJUSTED AS REQUIRED FOR EACH LOCATION.
21. POINT-OF-USE NEUTRALIZATION TANK. COORDINATE LOCATION AND PLACEMENT WITH WITH CASWORK. CONSIDERATION SHALL BE GIVEN FOR SERVICE AND MAINTENANCE ACCESSIBILITY.
22. LAB SINK AND GLASS WARE TO BE CONNECTED TO POINT-OF-USE NEUTRALIZATION TANK. REPORT FROM THE SINK LOCATION. COORDINATE WITH THE ARCHITECTURAL DRAWINGS FOR THE CASWORK. REFER TO DRAWING P0406 DETAIL SPODES FOR TYPICAL PIPING DIAGRAM. PIPING TO BE ADJUSTED AS REQUIRED FOR EACH LOCATION.
23. FOUR (4) 1/2" CWT TRAP PRIMER DISTRIBUTORS DOWN IN WALL TO LEVEL 0 TO SERVE FLOOR DRAIN AND FLOOR SINK IN LEVEL 1 MECHANICAL ROOM. REFER TO RISER 2-1 ON DRAWING P0406 FOR CONTINUATION.
24. TWO (2) 1/2" CWT TRAP PRIMER DISTRIBUTORS DOWN IN WALL TO LEVEL 0 TO SERVE FLOOR SINK AND STANDPIPE DRAIN IN LEVEL 1 FIRE PUMP ROOM. REFER TO RISER 2-1 ON DRAWING P0406 FOR CONTINUATION.



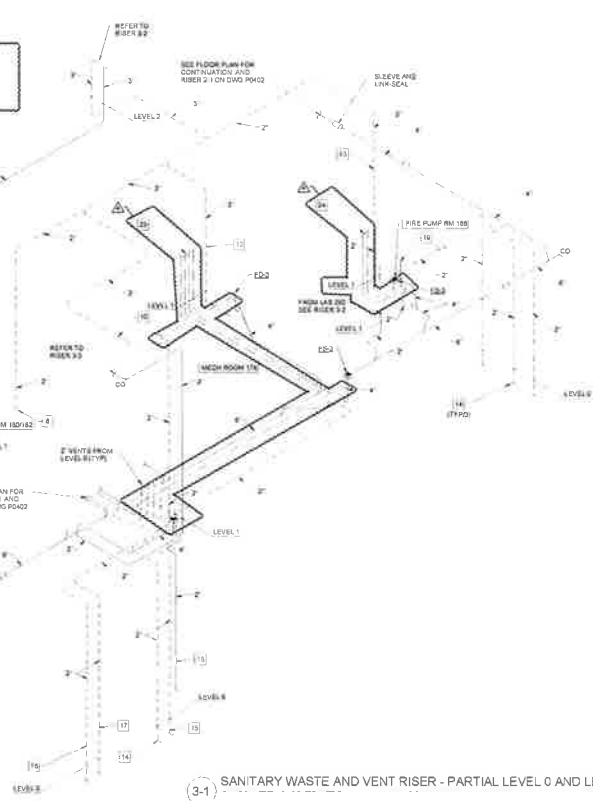
3-4 SANITARY WASTE AND VENT RISER - LAB 480 AND LAB 488



3-3 SANITARY WASTE AND VENT RISER - CLASS ROOM 276 AND PREP 282



3-2 SANITARY WASTE AND VENT RISER - LAB 292, LAB 378, PREP 386 AND LAB 388



3-1 SANITARY WASTE AND VENT RISER - PARTIAL LEVEL 0 AND LEVEL 1

1 PLUMBING WASTE AND VENT RISERS FOR PLUMBING RISER PR-3
P0406 / SCALE N.T.S.

4	ASH (314) 367-3670, 368 & 310	22 NOV 2016
3	ASH (314) 367-3670, 368 & 310	28 JUL 2016
2	ADDENDUM 2.4	24 MAY 2016
1	ADDENDUM 2.2	10 APR 2016
ISSUED FOR CONSTRUCTION (SPD)		01 MAR 2016
Rev	Description	Date

Drawing Title

RISERS - PLUMBING

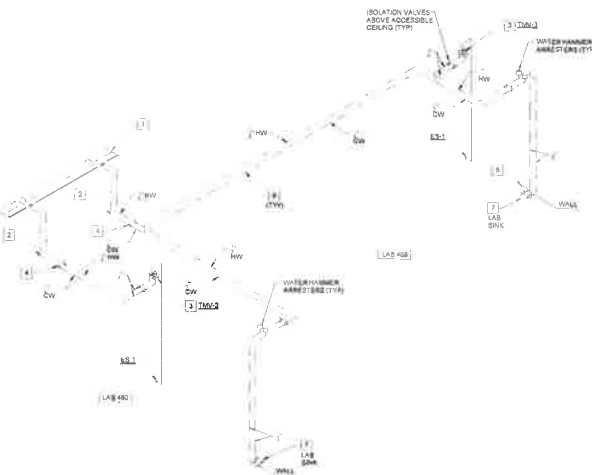
Project No. G450 (2) Drawn by

P0407

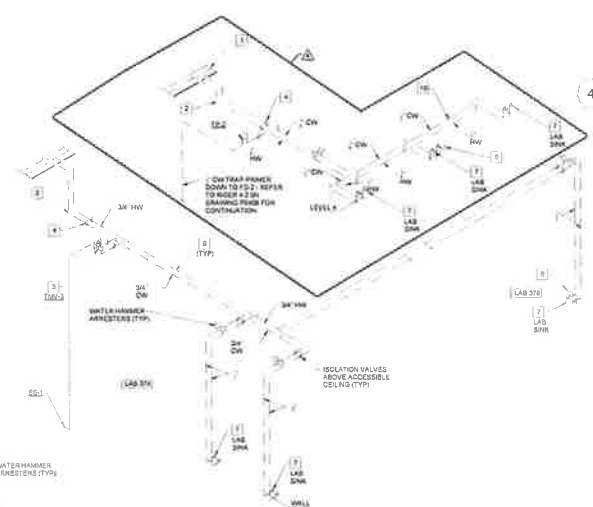
Webster University

KEYED NOTES (THIS SHEET ONLY)

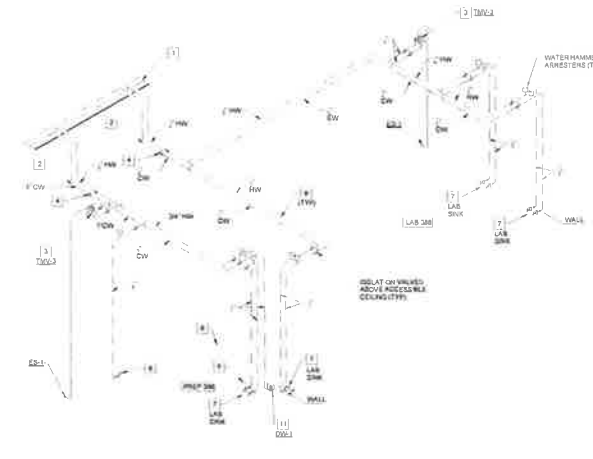
1. DOMESTIC WATER PIPING IN THE CORRIDOR TO BE RUN AT THE BOTTOM OF THE STRUCTURAL CLOSURE MEMBERS. COORDINATE INSTALLATION AND ROUTING WITH OTHER TRADES ON THIS PROJECT.
2. DROP PRIOR TO PIPING BELOW THE STRUCTURAL STEEL MEMBER. HOLD TIGHT TO BOTTOM OF STEEL.
3. THERMOSTAT/ANTISTATIC MIXING VALVE (TMV 2) SERVING THE EMERGENCY SHOWER TO BE LOCATED ABOVE THE ACCESSIBLE CEILING. REFER TO DRAWING P0403 DETAIL 3000 FOR PIPING DIAGRAM OF EMERGENCY SHOWER. VERIFY LOCATION AND PIPING CONFIGURATION PRIOR TO ROUGH-IN.
4. PROVIDE SHUT-OFF VALVES AT THE ENTRY TO EACH ROOM.
5. REFER TO DRAWING P0402 DETAIL 11000 FOR HOT WATER RETURN PIPING DIAGRAM.
6. WATER PIPING CONNECT ON TO THERMOSTAT/ANTISTATIC MIXING VALVE (TMV 2) SERVING THE DECK MOUNTED EMERGENCY EYEWASH. REFER TO DRAWING P0403 DETAIL 3000 FOR PIPING DIAGRAM OF EMERGENCY EYEWASH. VERIFY LOCATION AND PIPING CONFIGURATION PRIOR TO ROUGH-IN.
7. LAB SINK WITH LAB FAUCET TYPE (L-1).
8. WATER CONNECTION FOR AUTOCLAVE. COORDINATE LOCATION AND INSTALLATION WITH EQUIPMENT AND GAS/CHILL. VERIFY EQUIPMENT CONNECTIONS AND LOCATION. PROVIDE FITTINGS AND FINAL CONNECTIONS AS REQUIRED. COORDINATE INSTALLATION WITH EQUIPMENT.
9. DOMESTIC WATER PIPING IN EACH ROOM TO BE RUN AS HIGH AS POSSIBLE TO AVOID CONFLICTS. COORDINATE INSTALLATION WITH OTHER TRADES ON THIS PROJECT PRIOR TO ROUGH-IN.
10. DOMESTIC WATER PIPING IN CEILING SPACE OF LEVEL 3 TO SERVE LAB SINKS ON LEVEL 4. COORDINATE ROUTING AND INSTALLATION WITH SPACE CONDITIONS.
11. WATER CONNECTION FOR UNDER COUNTER GLASS WASHERS. COORDINATE LOCATION AND INSTALLATION WITH EQUIPMENT AND GAS/CHILL.



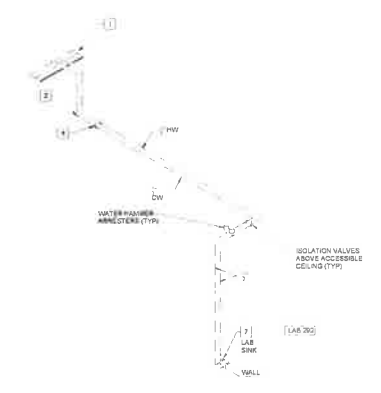
2 DOMESTIC WATER SUPPLY RISER - LAB 480 AND LAB 488



4 DOMESTIC WATER SUPPLY RISER - CLASS ROOM 276, PREP 262 AND LAB 284



1 DOMESTIC WATER SUPPLY RISER - PREP 386 AND LAB 398



3 DOMESTIC WATER SUPPLY RISER - LAB 292

1 DOMESTIC WATER SUPPLY RISER DIAGRAMS
SCALE: N.T.S.

4	ASH: (33) (R) 261 (26) 308 & 310	03 NOV 2016
5	ASH: (33) (R) 261 (26) 308 & 310	08 SEP 2016
2	ADDENDUM 2-1	24 MAY 2016
1	ADDENDUM 2-2	18 APR 2016
	ISSUED FOR CONSTRUCTION (EFT)	01 MAR 2016
No.	Description	Date

Drawing Title:

RISERS - PLUMBING

Project No: 04587-01 Checked by:

P0408

NOTES (THIS SHEET ONLY)

1. REFER TO DRAWING P003 DETAIL 2/1003 FOR TYPICAL LAB SINK WASTE CONNECTION DETAIL.
2. REFER TO DRAWING P003 DETAIL 3/1003 FOR TYPICAL EMERGENCY SHOWER PIPING DIAGRAM. COORDINATE PENETRATION THROUGH THE FLOOR WITH THE STRUCTURE BELOW AND THE ARCHITECTURAL DRAWINGS. OFF-SET THE PIPING AS REQUIRED.
3. OFF-SET VENT PIPING INTO THE WALL CAVITY TO EXTEND ABOVE THE CEILING. TYPICAL FOR LAB SINKS OR WHERE APPLICABLE.
4. WASTE PIPING TO BE LOCATED IN THE UTILITY SPACE BETWEEN THE WALL AND BACK OF CASEWORK. COORDINATE PENETRATION THROUGH THE FLOOR WITH THE STRUCTURE BELOW AND THE ARCHITECTURAL DRAWINGS. OFF-SET PIPING AS REQUIRED. TYPICAL FOR LAB SINKS OR WHERE APPLICABLE.
5. COORDINATE ROUTING AND INSTALLATION OF THE WASTE AND VENT PIPING ABOVE THE CEILING WHERE POSSIBLE. TYPICAL FOR ALL ABOVE THE CEILING PIPING.
6. EXTEND WASTE FROM EMERGENCY SHOWER HORIZONTAL IN WALL CAVITY TO AN AREA BEHIND THE LABORATORY CASE WORK. TURN PIPING OUT OF WALL WITH UTILITY SPACE BEHIND THE CASEWORK TO TURN DOWN THROUGH THE FLOOR. COORDINATE PENETRATION THROUGH THE FLOOR WITH THE STRUCTURE BELOW AND THE ARCHITECTURAL DRAWINGS. OFF-SET PIPING AS REQUIRED.
7. WASTE AND VENT TO BE OFF-SET AT LEVEL 3 TO CONTINUE DOWN. COORDINATE INSTALLATION AND ROUTING WITH STRUCTURE AND BUILDING CONDITIONS.
8. INTERNAL BOND TO CLIP SINK ROUTE WASTE PIPING IN UTILITY CHASE IN CASEWORK. COORDINATE INSTALLATION WITH CASEWORK AND OTHER UTILITIES WITHIN THIS SPACE.
9. WASTE DOWN TO LEVEL 0.
10. WASTE TO BE OFF-SET AT LEVEL 1 TO CONTINUE DOWN. COORDINATE INSTALLATION AND ROUTING WITH STRUCTURE AND BUILDING CONDITIONS.
11. WASTE AND VENT WITHIN CABINET BELOW LAB SINK. EXTEND THE VENT UP TO BELOW THE COUNTERTOP BEFORE DOWN. PROVIDE CLEANOUT TEES BY WASTE AND VENT PIPING. EXTEND AND CONNECT VENT RETURN TO THE UNDER FLOOR WASTE PIPING FIVE FEET DOWN STAIRS.
12. PROVIDE LAB SINK TIE IN WITH SINK CONNECTION FOR CONDENSATE WASTE. COORDINATE WITH MECHANICAL CONTRACTOR.
13. VENT FROM LOADING DOCK 177 FLOOR DRAINS.
14. LAB SINK TO BE CONVERTED TO POINT-OF-USE NEUTRALIZATION TANK REMOTE FROM THE SINK LOCATION. COORDINATE WITH THE ARCHITECTURAL DRAWINGS FOR THE CASEWORK. REFER TO DRAWING P003 DETAIL 1/1003 FOR TYPICAL PIPING DIAGRAM. PIPING TO BE ADJUSTED AS REQUIRED FOR EACH LOCATION. POINT-OF-USE NEUTRALIZATION TANK. COORDINATE LOCATION AND PLACEMENT WITH CASEWORK. CONSIDERATION SHALL BE GIVEN FOR SERVICE AND MAINTENANCE ACCESSIBILITY.
15. LAB SINK AND GLASS WASHUP TO BE CONNECTED TO POINT-OF-USE NEUTRALIZATION TANK REMOTE FROM THE SINK LOCATION. COORDINATE WITH THE ARCHITECTURAL DRAWINGS FOR THE CASEWORK. REFER TO DRAWING P003 DETAIL 1/1003 FOR TYPICAL PIPING DIAGRAM. PIPING TO BE ADJUSTED AS REQUIRED FOR EACH LOCATION.

(4-3) SANITARY WASTE AND VENT RISER - PREP 478 AND LAB 480

(5-3) SANITARY WASTE AND VENT RISER - PREP 472 AND LAB 478

(5-2) SANITARY WASTE AND VENT RISER - LAB WASTE 372B, RESEARCH 374A AND COLD RM 376

(4-2) SANITARY WASTE AND VENT RISER - TISSUE CULTURE 374B AND LAB 378

(4-1) SANITARY WASTE AND VENT RISER - CLASSROOM 276

(5-1) SANITARY WASTE AND VENT RISER - CHEM STOCK 272, MICRO 274 AND CLASSROOM 276

PLUMBING WASTE AND VENT RISERS FOR PLUMBING RISER PR-5

PLUMBING WASTE AND VENT RISERS FOR PLUMBING RISER PR-4

PLUMBING WASTE AND VENT RISERS FOR PLUMBING RISERS PR-4 AND PR-5

4	ASH - 033 (H) 301 280 306 & 310	20 NOV 2016
3	ASH - 018 (H) 103 268 & 310	28 JUL 2016
2	ADDENDUM 2-4	24 MAY 2016
1	ADDENDUM 2-2	18 APR 2016
	ISSUED FOR CONSTRUCTION (B/F)	01 MAR 2016
No.	Revision	Date

Creating Title

RISERS - PLUMBING

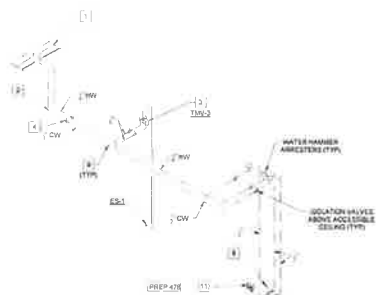
Project No. 04000101

Client

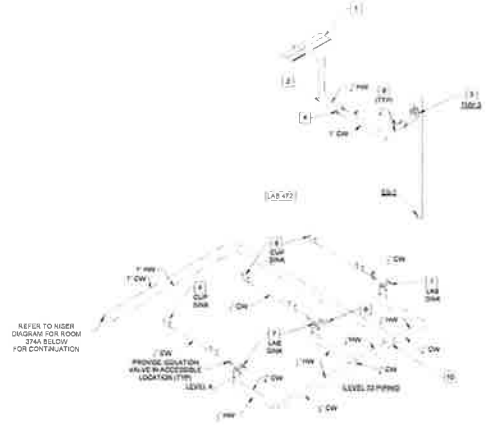
P0409

Sheet No. 04000101

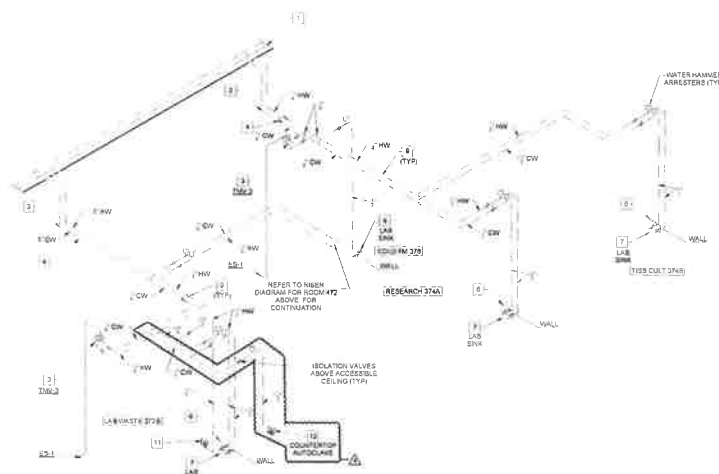
- KEY NOTES (THIS SHEET ONLY)**
- DOMESTIC WATER PIPING IN THE CORRIDOR TO BE RUN AT THE BOTTOM OF THE STRUCTURAL CROSS MEMBERS. COORDINATE INSTALLATION AND ROUTING WITH OTHER TRADES ON THIS PROJECT.
 - DROP PIPING BELOW THE STRUCTURAL STEEL MEMBER. HOLD TIGHT TO BOTTOM OF STEEL.
 - THERMOSTATIC MIXING VALVE (TMV-2) SERVING THE EMERGENCY SHOWER TO BE LOCATED ABOVE THE ACCESSIBLE CEILING. REFER TO DRAWING PH03 DETAIL 4P043 FOR PIPING DIAGRAM OF EMERGENCY SHOWER. VERIFY LOCATION AND PIPING CONFIGURATION PRIOR TO ROUGH-IN.
 - PROVIDE SHUT OFF VALVES AT THE ENTRY TO EACH ROOM.
 - REFER TO DRAWING PH03 DETAIL 4P043 FOR HOT WATER RETURN PIPING DIAGRAM.
 - WATER PIPING CONNECTION TO THERMOSTATIC MIXING VALVE (TMV-2) SERVING THE DECK MOUNTED EMERGENCY EYEWASH. REFER TO DRAWING PH03 DETAIL 4P043 FOR PIPING DIAGRAM OF EMERGENCY EYEWASH. VERIFY LOCATION AND PIPING CONFIGURATION PRIOR TO ROUGH-IN.
 - LAB SINK WITH LAB FAUCET TYPE LF 1.
 - CUP SINK WITH LAB FAUCET TYPE LF 2. TYPICAL FOR 8X CUPS SINKS AND TWELVE LAB FAUCET LF 2. EXTEND COLD WATER PIPING WITHIN UTILITY CHASE OF CASEWORK. COORDINATE ROUTING AND INSTALLATION WITH OTHER SERVICES IN SPACE.
 - DOMESTIC WATER PIPING IN EACH ROOM TO BE RUN AS HIGH AS POSSIBLE TO AVOID CONFLICTS. COORDINATE INSTALLATION WITH OTHER TRADES ON THIS PROJECT PRIOR TO ROUGH-IN.
 - DOMESTIC WATER PIPING IN CEILING SPACE OF LEVEL 2 TO SERVE LAB AND CUP SINKS ON LEVEL 4. COORDINATE ROUTING AND INSTALLATION WITH SPACE CONDITIONS.
 - WATER CONNECTION FOR UNDER COUNTER GLASS WASHER. COORDINATE LOCATION AND INSTALLATION WITH EQUIPMENT AND CASEWORK.
 - WATER CONNECTION FOR COUNTERTOP AUTOClaves. COORDINATE LOCATION AND INSTALLATION WITH EQUIPMENT AND CASEWORK. PROVIDE WATER OUTLET SIDE ANALYS TO 0301.



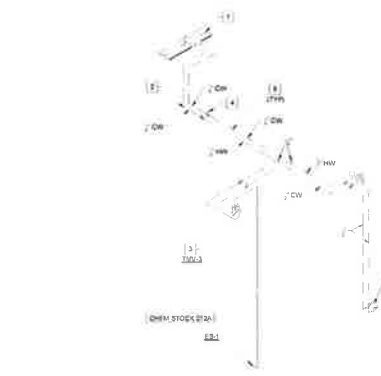
2 DOMESTIC WATER SUPPLY RISER - PREP 478



4 DOMESTIC WATER SUPPLY RISER - PREP 472



1 DOMESTIC WATER SUPPLY RISER - LAB WASTE 372B, RESEARCH 374A, TISSUE CULTURE 374B AND COLD ROOM 376



3 DOMESTIC WATER SUPPLY RISER - CHEM STOCK 272A AND MICROSCOPY 274

1 DOMESTIC WATER SUPPLY RISER DIAGRAMS
P0409 SCALE: 1/8" = 1'-0"

[illegible][illegible]

Szachnieski, Jason

From: Patel, Kelvin <kpatel@CANNONDESIGN.COM>
Sent: Monday, January 30, 2017 3:20 PM
To: Craig Miller, Sr. (craigmiller29@webster.edu); Szachnieski, Jason
Cc: Grossman, Lynn
Subject: FW: Webster ISB - CP's 32, 64, 52

Craig,

Below are comments from WEBB regarding CP-052.

Thanks,

Kelvin Patel, CDT, LEED AP BD+C

Associate

CANNONDESIGN

T 314.425.8756

From: Michael Whitworth [mailto:mwhitworth@webb-engineering.com]
Sent: Friday, January 27, 2017 6:47 PM
To: Patel, Kelvin <kpatel@CANNONDESIGN.COM>
Cc: 'Patrick Garner' <pgarner@wmtao.com>
Subject: RE: Webster ISB - CP's 32, 64, 52

Kelvin,
No further comments.

Mike Whitworth
Webb Engineering Services, Inc.
1400 S. 3rd Street, Suite 201
St. Louis Missouri 63104
314.588.0600 ext. 208
mwhitworth@webb-engineering.com

From: Patel, Kelvin [mailto:kpatel@CANNONDESIGN.COM]
Sent: Friday, January 27, 2017 10:39
To: Michael Whitworth
Cc: 'Patrick Garner'
Subject: FW: Webster ISB - CP's 32, 64, 52

Mike,

Attached is the revised CP-052 per your comments. Please review and let me know if the CP is acceptable.

Thanks,

Kelvin Patel, CDT, LEED AP BD+C

Associate

CANNONDESIGN

T 314.425.8756

From: Szachnieski, Jason [<mailto:JRSzachnieski@paric.com>]
Sent: Friday, January 27, 2017 9:14 AM
To: Patel, Kelvin <kpatel@CANNONDESIGN.COM>; Craig Miller, Sr. (craigmiller29@webster.edu) <craigmiller29@webster.edu>
Cc: Grossman, Lynn <lgrossman@CANNONDESIGN.COM>
Subject: RE: Webster ISB - CP's 32, 64, 52

Kelvin,

See revised CP-052. This takes out the access panels that were noted by Mike on Page 13. Hopefully this is the last revision!!

Jason

JASON SZACHNIESKI, PE, LEED® AP

SENIOR PROJECT MANAGER

Direct: 636-561-9608

Main: 636-561-9500

77 Westport Plaza, Suite 250
St. Louis, MO 63146

PARIC.COM



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From: Patel, Kelvin [<mailto:kpatel@CANNONDESIGN.COM>]
Sent: Friday, January 13, 2017 11:41 AM
To: Craig Miller, Sr. (craigmiller29@webster.edu); Szachnieski, Jason
Cc: Grossman, Lynn
Subject: FW: Webster ISB - CP's 32, 64, 52

Craig & Jason,

Forwarding comments from WEBB for CP-052.

Kelvin Patel, CDT, LEED AP BD+C

Associate

CANNONDESIGN

T 314.425.8756

From: Michael Whitworth [<mailto:mwhitworth@webb-engineering.com>]
Sent: Friday, January 13, 2017 8:57 AM
To: Patel, Kelvin <kpatel@CANNONDESIGN.COM>
Cc: 'Patrick Garner' <pgarner@wmtao.com>; Grossman, Lynn <lgrossman@CANNONDESIGN.COM>
Subject: RE: Webster ISB - CP's 32, 64, 52

Kelvin,
See comment on page 013

Mike Whitworth
Webb Engineering Services, Inc.
1400 S. 3rd Street, Suite 201
St. Louis Missouri 63104
314.588.0600 ext. 208
mwhitworth@webb-engineering.com

From: Patel, Kelvin [<mailto:kpatel@CANNONDESIGN.COM>]
Sent: Wednesday, January 11, 2017 17:21
To: Michael Whitworth
Cc: 'Patrick Garner'; Grossman, Lynn
Subject: FW: Webster ISB - CP's 32, 64, 52

Mike – Please review the revised CP-052 per your comments. Thanks.

Kelvin Patel, CDT, LEED AP BD+C
Associate
CANNONDESIGN
T 314.425.8756

From: Szachnieski, Jason [<mailto:JRSzachnieski@paric.com>]
Sent: Wednesday, January 11, 2017 5:09 PM
To: Patel, Kelvin <kpatel@CANNONDESIGN.COM>; Craig Miller, Sr. (craigmiller29@webster.edu)
<craigmiller29@webster.edu>
Cc: Grossman, Lynn <lgrossman@CANNONDESIGN.COM>
Subject: RE: Webster ISB - CP's 32, 64, 52

Kelvin and Craig,
Attached is a revised CP-052 based on Webb's comments. Please let me know if you have any further questions so this can be approved.

Thanks,
Jason

JASON SZACHNIESKI, PE, LEED® AP
SENIOR PROJECT MANAGER

Direct: 636-561-9608
Main: 636-561-9500

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St. Louis, MO 63146



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From: Patel, Kelvin [<mailto:kpatel@CANNONDESIGN.COM>]
Sent: Thursday, January 5, 2017 5:43 PM
To: Craig Miller, Sr. (craigmiller29@webster.edu); Szachnieski, Jason
Cc: Grossman, Lynn
Subject: FW: Webster ISB - CP's 32, 64, 52

Craig,

Attached are WEBB's comment to CP-052.

Also, attached are the WEBB comments for CP-032 and CP-064 which I forwarded to you on 12/22/16.

Thanks,

Kelvin Patel, CDT, LEED AP BD+C

Associate

CANNONDESIGN

T 314.425.8756

From: Michael Whitworth [<mailto:mwhitworth@webb-engineering.com>]
Sent: Thursday, December 29, 2016 2:47 PM
To: Patel, Kelvin <kpatel@CANNONDESIGN.COM>
Cc: 'Patrick Garner' <pgarner@wmtao.com>; Grossman, Lynn <lgrossman@CANNONDESIGN.COM>
Subject: RE: Webster ISB - CP's 32, 64, 52

Kelvin,

Attached are a few comments for CP-052.

See E-mail sent (dated 12/22/2016) for CP-032 and CP-064.

Mike Whitworth
Webb Engineering Services, Inc.
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mwhitworth@webb-engineering.com